SMBT ICTM ICTM™ SMBT
International Conference on Traditional Medicine-SMBT

4th International Conference on Traditional Medicine

GREEN PHARMACY - SHARING A NEW VISION TO IMPROVISE GLOBAL HEALTH

January 06th-07th, 2023

SMBT CAMPUS

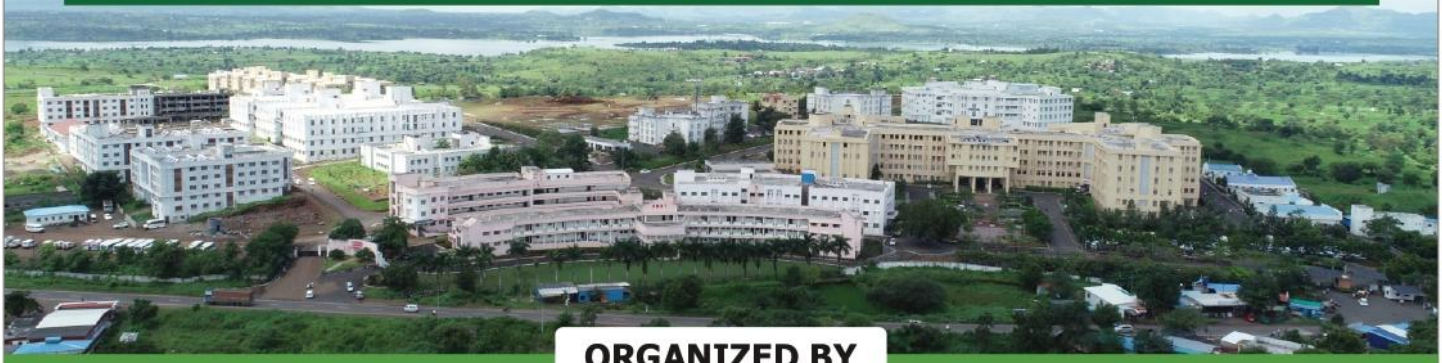
THE BEST CAMPUS LIFE

4th International Conference on Traditional Medicine
Green Pharmacy - Sharing A New Vision To Improvise Global Health

MEDICAL | AYURVED | DENTAL | PHARMACY | NURSING

More Details : **www.ictm2023smbt.in**

Venue : SMBT Sevabhavi Trust's Educational Campus, Nashik, Maharashtra - 422403, India



ORGANIZED BY

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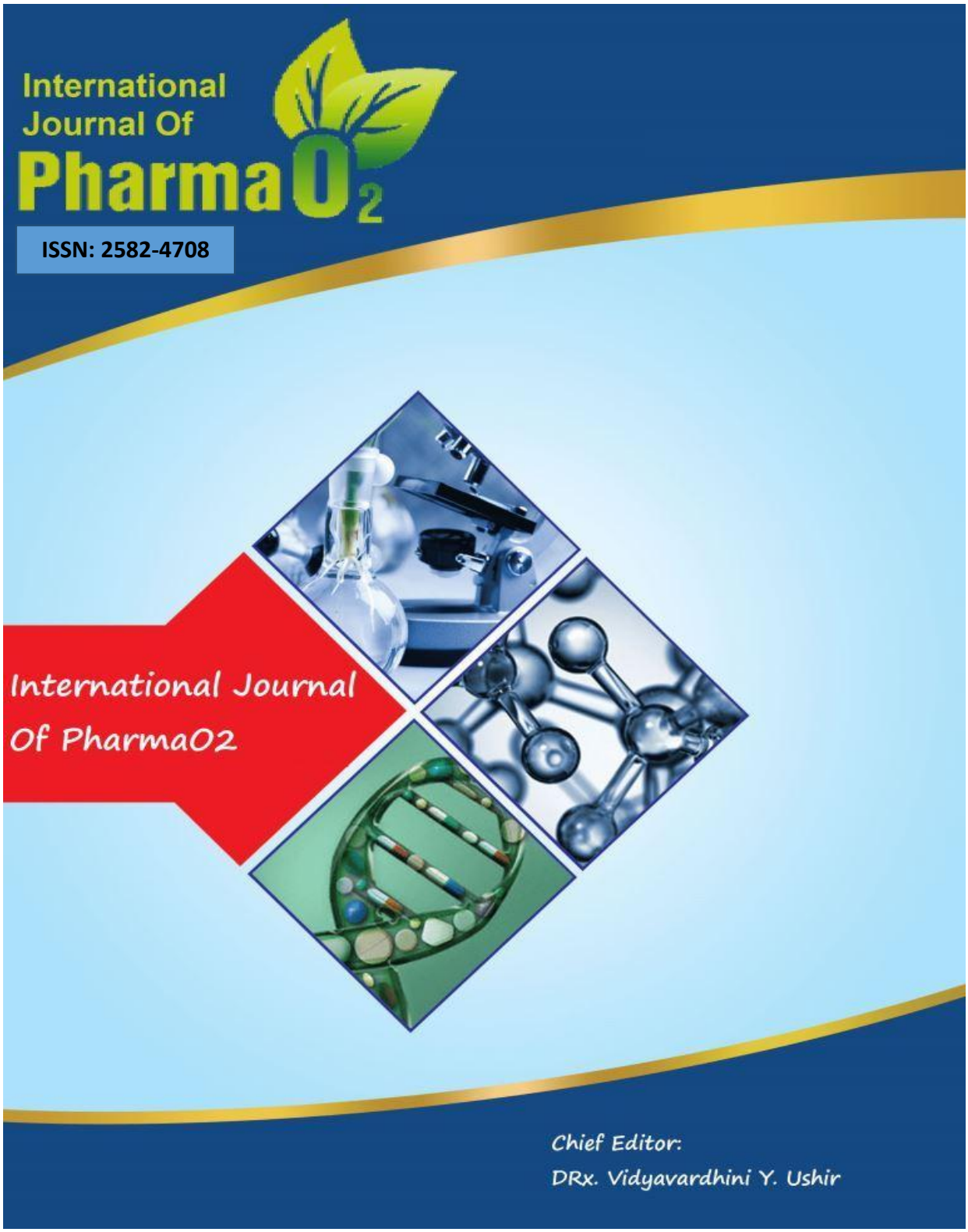
SMBT INSTITUTE OF DIPLOMA PHARMACY

Nandihills, Dhamangaon, Tal. Igatpuri, Dist. Nashik, Maharashtra-422403, India.

ICTM 2023

SCIENTIFIC

PROCEEDING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Welcome Message

Dear all Delegates and Participants

SMBT is pleased to welcome all the participants from different states and various countres to attend 04th International conference on 'Green Pharmacy - Sharing A New Vision to Improvise Global Health' during January 6th and 7th, 2023 at Nashik, India. The theme of the conference is "Exploring quality assurance and phytochemical research in traditional medicine which practiced for treatment and healing" This ICTM 2023 deals with the current research developments in the field of Traditional Medicine and also about the new treatment methods which are devised by scientists to treat various diseases in an easier way. These formal get together acts as a best platform for participants to learn about the recent trends in quality assurance and phytochemical research and development in traditional medicines.

The ICTM 2023 is focuses on recent research an development on Traditional Medicine and clinical study of herbal medicines. The session are emphasized on

1. Traditional medicines- sources & clinical application
2. Quality assurance 0f Traditional Medicine
3. Phytochemistry – isolation and use of active principles.
4. Trade of natural products and Traditional Medicine
5. Biological screening of natural medicines.
6. Herbal Formulations

Eight lectures will be presented by distinguished scientists. The researchers will be able to report their research finding in --- paper presentations and --- poster presentations. ----poster presentation awards and -- paper presentation awards will be presented each to -- academician/ research scholar and -- students.

We would like to thank to the SMBT management for their help and encouragement during the preparatory stage of the conference. Our grateful thank for the scientific committee for processing abstracts and proceedings book in time. Our special thank for the organizing committee who have done their most to offer a successful and satisfying conference. We wish you all a fruitful conference which strengthen friendship and traditional medicine. We hope everyone enjoy their stay in Nashik and take home new scientific knowledge and inspiration.

…SMBT Educational Trust

Dr. Yogesh V. Ushir
Programme Chair,
Principal, SMBT Institute of D. Pharmacy

Organizing Committee Members

Mr. K.A. Suryavanshi

Mr. K. J. Tiwari

Ms. B.D. Tambe

Ms. S.T. Garud

Mr. V. R. Mahajan

Ms. M. Y. Gaikwad

Ms. P.C.Patil

ICTM 2023 Pre-conference

Scientific Program Schedule

05th January 2023 Venue- SMBT Educational Campues

Sr.No.	Time (IST, Mumbai)	Activity	Topic
1	12.30 pm to 1.00 pm	Registration	
2	1.01pm To 1.45 pm	**Plenary Session –I** Dr. Dessy Harmawan S. KEP., NS, M.KES	The Target Organs of Vitamin D at the Upstream Section of cAMP in Blood Pressure Control
	1.46 am to 1.50 pm	Session open for Interaction	
3	2.00 pm To 2.45 pm	**Plenary Session –II** Chin-Soon Phan	Natural Products Biosynthesis
4	2.46 am to 2.50 pm	Session open for Interaction	
5	3.11 pm To 3.50 pm	**Plenary Session –III** Opeyemi Joshua Olatunji PSU; Thailand	Phytochemical Investigation of Medicinal Plants and Marine invertebrates
6	3.50 pm To 4.00 pm	Session open for Interaction	
7	4.00 pm To 4.30 pm	Certificate Distribution	

ICTM 2023 Conference

Scientific Program Schedule

06th January 2023 Venue- SMBT Educational Campues

Day 1	**Breakfast**		8:00-9:00 am		
	Registration		8.00 – 9.00 am	Registration & Kit collection	
	Opening ceremony	Inauguration	09:00-09:30 am		
		Remarks	9.00 -9.05 am	Lamp lighting	
			9:06-9:10 am	Dr. Y.V. Ushir Chair, ICTM-2023	
			9:11-9:15 am	Shri. Kurhe Sir, Board Member	
			9:16-09:20 am	Dr. Harshal Tambe MT SMBT Trust	
		National Anthem	9.21 – 9.23 am	Anthem	
		Group Photo	9.23 – 9.30 am	Auditorium stage	
	End of opening ceremony				
	Plenary session -I	Medicinal Plants of Nepal: a treasure of nature's green pharmacy	9.31 am To 10.15 am	Dr. Tirtha Raj Pandey National Herbarium & Plant Laboratories, Nepal	Co-chairs: Ms. Harsha Narkhede & Ms. Maya Gaikwad
	10.16 am to 10.20 am .**Session open for Interaction**				
	10.21 am to 10.25 am **Felicitation of Speaker and Moderators**				
	10.26 am to 10.30 am **Dissemination of Book**				
	Plenary session -II	Kratom [*Mitragynaspeciosa*(Korth.) Havil.]: Mitragynine and Its Pharmaceutical Applications	10.31 am To 11.15 am	Dr. Mohammad Kamil, Director- General, Lotus Holistic Health Institue, Abu Dhabi, UAE	Co-chairs: Dr. Sakshi Waghmare And Mr. Kiran Suryavanshi
	11.16 am to 11.20 am .**Session open for Interaction**				
	11.21 am to 10.25 am **Felicitation of Speaker and Moderators1**				
	11.26 am to 11.30 am **Dissemination of Book**				
	Plenary session -III	A perspective on Traditional Medicine, and Green Pharmacy in Bhutan	11.31 am To 12.15 pm	Dr. JuraithipWungssintaweekul Prince of Songkla University, Thailand	Co-chairs: Dr. Vijay Mahajan & Mr. Ashok Rabade
	12.16 am to 12.20 pm .**Session open for Interaction**				
	12.21 pm to 12.25 pm **Felicitation of Speaker and Moderators1**				
	Lunch Break 12.30 pm To 1.30 pm				

	Scientific Sessions	**Paper Presentation**	1.30 pm To 3.15 pm	Main Conference Hall SPA 01 to SPA 09 Admin Conference Hall AP 01 to AP 09	Coordinator: Ms. Maya Gaikwad & Ms. Darshana Varma
		Poster Presentation	1.30 pm To 3.15 pm	ICTM Conference Hall Porch SPO 01 to SPO 10 APO 01 to APO 05	Coordinator:: Ms. Prajakta Patil & Ms. Lalita Pagar
	Tea Break	3.16 pm to 3.30 pm **High Tea**			
	Scientific Sessions	**Paper Presentation**	3.30 pm To 4.30 pm	Main Conference Hall SP 01 to SP 15 Admin Conference Hall AP 10 to AP 15	Coordinator: Ms. Maya Gaikwad & Ms. Darshana Varma
		Poster Presentation	3.30 pm To 4.30 pm	ICTM Conference Hall Porch APO 06 to APO 11 SPO 11 to SPO 20	Coordinator:: Ms. Prajakta Patil & Ms. Lalita Pagar
	End of Day 1				

ICTM 2023 Conference

Scientific Program Schedule

07th January 2023 Venue- SMBT Educational Campus

Day 2	**Breakfast** 8:00-9:00 am				
	Plenary Session -IV	Safety and Quality of Traditional Herbal Medicine	9.01 am to 9.45 am	Dr. Uttam Budhathoki HOD Dept. Of PharmacyKathmandu University	Co-chairs: Dr. Abhijit Tambe & Dr. Nirmala Shinde
	9.46 am to 9.50 pm .**Session open for Interaction**				
	9.51 am to 9.55 am **Felicitation of Speaker and Moderators**				
	9.56 am to 10.00 am **Dissemination of Book**				
	Plenary Session -V	Exploring Value Addition of Natural Products for Sustainable Development in Sri Lanka	10.01am to 10.45am	Prof. Priyani AshokaParanagama Directr, Institute of Indigenous Medicine, University of Colombo, Sri Lanka	Co-chairs: Dr. Nitin Gaikwad And Ms. Sujata Lambe
	10.46 am to 10.50 pm .**Session open for Interaction**				
	10.51 am to 10.55 am **Felicitation of Speaker and Moderators**				
	Plenary Session -VI	Screening for Atrial Fibrillation in Community: Need of an Hour	11.00 am To 11.45 am	Prof. Durga Bista, Department of Pharmacy, Kathmandu University, Dhulikhel , Nepal.	Co-chairs: Dr. Sandip Lambe And Mr. Kundan Tiwari
	11.46 am to 12.00 pm **Felicitation of Speaker and Moderators**				
	Lunch Break 12.00 pm to 1.00 pm				
	Scientific Sessions	**Paper Presentation**	1.00 pm To 3.15 pm	Main Conference Hall SP 16 to SP 19 And SPA 01 to SPA 09	Coordinator: Ms. Maya Gaikwad And Ms. Darshana Varma

		Poster Presentation	1.00 pm to 3.15 pm	---------	Coordinator:: Ms. Prajakta Patil And Ms. Lalita Pagar
	Tea Break	3.16 pm to 3.30 pm **High Tea**			
	Valedictory session	Prize distribution (Best oral and poster presentation)	**3.31 pm to 4.30 pm**	1st and 2nd Prize for Diploma, UG+PG and Academics/ PhD scholar	
	Closing remarks		**4.31pm To 4.45pm**	**Dr. Y.V. Ushir**	
	End of Day 2				

Table for Paper Presentation

Academic / Research Scholar Category

Sr. No.	Code	Name of Delegate	Title of Presentation
1	AP-01	Mr. Akshaykumar Daswad	In-Vitro estimation Of Antioxidant and Antidiabetic Potential of Plant Extracts
2	AP-02	Dr.Mantri Kiran	A Preliminary Pharmacognostical And Phytochemical Study Of Premna Latifolia. Roxb. Leaves, A Herbal Drug From Traditional System Of Medicine."
3	AP-03	Dr.Shrihas Pagare	Preparation of Herbal drugs as per Ayurveda
4	AP-04	Mr. Kunal Surwade	Development of Chromatographic Method for The Identification and Quantification of Herbal Formulations
5	AP-05	Ms. Manjusha Sanap	Synthesis And Biological Evaluataion Of Novel Substituted Chromen Derivatives For Their Anti-Cancer Activity
6	AP-06	Dr Pramod. R. Kharkar	An Ayurvedic Remedy -- Fasting For Healthy Lifestyle
7	AP-07	Ms. Trupti Shevante	Phytochemical and HPTLC Studies of Sesbania Grandiflora L
8	AP-08	Ms. Gayatri M. Jejurkar	Extraction Of Phytoconstituents, Formulation, Validation And Stability Studies Of Antiacne Herbal Gel
9	AP-09	Ms. Sakshi Waghmare	A Critical review of Ashwagandha (WithaniaSominifera)
10	AP-10	Mr. Rahul Sabale	Neuroprotective impact of bioactive compounds on scopolamine-induced amnesia model

11	AP-11	Ms.Bharti Parmar	Natural product's isolation and Extraction - Between conventional and Modern techniques – Review
12	AP-12	Ms.Anuradha Jadhav	Development And Evaluation Of Oral Polyherbal Formulation For Litholytic Activity Ethylene Glycol Induced Urolithiasis In Wistar Rats
13	AP-13	Dr.Abhijit Tambe	A comparative evaluation of effect of novel gingival retraction paste and commercially available paste on gingival dilation
14	AP-14	Ms.Rashmi H Mishal	Vanilla Cultivation- A Promising Road Aheadforindia
15	AP-15	Ms. Punam D. Bagad	Development, Optimization & Evaluation of Surface Modified PLGA Nanoparticles Containing PPAR-γReceptor Agonist

AP: Academician/Research Scholar Paper

Table for Paper Presentation

Student Category

Sr. No.	Code	Name of Delegate	Title of Presentation
1	SPA-01	Ms Bhole Swheta	Formulation and Evaluation of Herbal shampoo based on natural sources
2	SPA-02	Mr.Nikhil Adole	Formulation and Evaluation of Herbal Anti-Dandruff Shampoo from Bhringraj leaf
3	SPA-03	Ms.Vaishnavi Katkale	Formulation and Evaluation of Herbal Wound Healing Ointment containing extract of Psidium guajava
4	SPA-04	Ms.Gayatri Kadam	Formulation and Evaluation of Antifungal Polyherbal Dusting Powder
5	SPA-05	Ms.Gupte Shruti	Formulation and Evaluation of Herbal Antidiabetic Suspension
6	SPA-06	Mr.Devdhar Bhalerao	Formulation & Evaluation Of Natural Lip Balm.
7	SPA-07	Ms.Kalyani Dubhashe	Formulation And Evalution Herabal Lotion
8	SPA-08	Ms. Pooja R. Zankar	Formulation and Evaluation of Butterfly Pea Flower Antiageing Face Wash gel
9	SPA-09	Janhvi Patil	Formulation and Evaluation of Acetaminophen Mouth Dissolving Tablets
10	SP-01	Ms.Siddhi Chandak	Cytotoxic and Phytochemical screening of Piper betle

11	SP-02	Mr.Shubham Gadge	Formulation, Development and Evaluation of Nutraceutical Tablets of Indian Propolis
12	SP-03	Prathmesh bagul	Formulation and evaluation of polyherbal antiacne soap
13	SP-04	Mr.Yogesh Suryawanshi	Formulation And Evaluation Of Medicated Chewing Gum For The Treatment Of Primary Dysmenorrhea
14	SP-05	Ms.Prajakta Thorat	Formulation development and characterization of PLGA-Luliconazole Nanoparticles loaded Gel System for Topical Fungal Treatment
15	SP-06	Ms.Shraddha Shankarpelli	Formulation and evaluation of topical delivery system for the treatment of Athlete's foot
16	SP-07	Ms.Sanika Pawar	Formulation and Evaluation of Antioxidant Face pack using Gallic Acid as a Active Phytoconstituent
17	SP-08	Ms.Aarti Landge	Formulation And Evaluation Of Polyherbal Facial Scrub
18	SP-09	Mr.Mayur Mahajan	Formulation And Evaluation Of Medicated Chewing Gum For The Treatment Of Primary Dysmenorrhea
19	SP-10	Ms.Laiba Chaudhary	Formulation and Evaluation of Herbal Chocolate
20	SP-11	Mr.Harshal Desale	Cadamba - Traditional Therapeutic Plant With Versatile Pharmacological Activities

21	SP-12	Komal Sagar	Development & evaluation of polyherbal mosquito repellent cream by using natural lutein extract & essential oils
22	SP-13	Miss.Ruksar Shikalgar	Design Formulation and Evaluation of a Transdermal Gel Containing Ethosomes of Millingtoniahortensis Leaf Extract
23	SP-14	Ms. Janvi Patel	Formulations and evaluation of Antioxidant peel-off gel mask using Gallic acid as a active phytoconstituent
24	SP-15	Mr.Amol Tonde	Enzymatic Hydrolysis of Gluten using Proteolytic Enzyme for the Possible Treatment of Celiac Disease
25	SP-16	Ms Tejaswini K. Dalvi	Formulation, Development and Evaluation of Herbal face pack for different skin problems
26	SP-17	Ms. Siddhi Deshmukh	Formulation and evaluation Herbal Piper Betle ointment
27	SP-18	Ms.Tanuja Pawar	An in vitro comparative Anti-Bacterial efficacy of MurrayaKoeingii (Curry leaves), Camellia Sinensis (Green tea) and 2% Chlorhexidine against Enterococcus Faecalis
28	SP-19	Ms.Simona D'souza	Assessment of Hepatoprotective and Nephroprotective Potential of Nerolidol on Wistar Rats.

SPA: Students Paper (Diploma) SP: Students Paper (UG/PG)

Table for Poster Presentation

Academic / Research Scholar Category

Sr. No.	Code	Name of Delegate	Title of presentation
1	APO-01	Ms.Dipali Shelke	Pharmacological Evaluation Of Plant Extractsfor Antidiabetic Effect
2	APO-02	Mr.Gulam Muhammad Khan	Drug Use Patterns In A Respiratory Disease Center Among Patients With Fev1/Fvc > 70%
3	APO-03	Ms.Arti A Ingole	Treatment of Depression with The Herbal Medicines and Other Therapies.
4	APO-04	Dr.Manisha Gavit	Traditional uses of Shunthi (Zingiber officinale Rosc.) & its health benefits.
5	APO-05	Mrs. Archana Hiwase	Herbal Medicines and Lifestyle Management for The Treatment of Polycysticovarian syndrome
6	APO-06	Ms. Gayatri M. Jejurkar	Qualitative and Quantitative Analysis of Flavonoid Content from Selected Plant Extract
7	APO-07	Pallavi Patil	review of Ayurvedic drugs (herbs) used for external application in the treatment of Vyanga (Melasma)
8	APO-08	Dr Suwarna Chaudhary	Traditional Methods Of Preparation Of Anutaila And Scientific Review Of Medicinal Biomolecules
9	APO-09	Dr.Varsharani Santosh Niphade	A Scientific Review On The Use Of A Traditional Medicine – Guggulu (Commiphera Mukul) In The Management Of Hypothyroidism

10	APO-10	Ms.Ashwini Karwa	Assessment of Efficacy of Aloevera gel Amongst Patient with Gingivitis and Apthous Ulcer
11	APO-11	Yogita B. Thombare	Development and Validation for the Simultaneous Determination of Aspirin, Atorvastatin Calcium and Clopidogrel Bisulphate by Reversed-Phase HPLC Method in its Bulk and Pharmaceutical Capsule Dosage Form

APO:- Academician/ Research Scholar Paper

Table for Poster Presentation

Student Category

Sr. No.	Code	Name of Delegate	Title of Presentation
1	SPO-01	Ms.Akanksha Lokhande	Formulation and Evaluation of Antipigmentation glossy Herbal Face Pack
2	SPO-02	Ms.Damini Gaykar	Formulation and evaluation of Ayurvedic Herbal Tooth Powder for oral use
3	SPO-03	Mr.Kunal Rajput	Formulation and Evaluation of Herbal Cream
4	SPO-04	Mr. Nitin Vanarase	Formulatio and Evaluation Herbal Multipurpose Cream.
5	SPO-05	Ms.Ashwini Bharti	Design And Development Of Herbal Delivery System For The Treatment Of Lips Hyper-Pigmentation
6	SPO-06	Ms.Dhanashree Mande	Phytochemical composition, Biological activities and Nutritional aspects of Hylocereusundatus: A review
7	SPO-07	Ms Mansi Bhoir	An antimicrobial activity of Trachyspermum ammi leaves
8	SPO-08	Mr. Mayur R. Wagh	A Review On Herbal Medicines Used In Treatment Of Jaundice
9	SPO-09	Mr.Dipak Thorat	“Anticancer Activity On Ethanolic Extracts Of ‘Anisomeles Heyneana
10	SPO-10	Ms.Pooja Kadam	Design and Development of Value Added Herbal Delivery System for Topical Treatment of periodontal diseases-Toothpaste and chewable film.
11	SPO-11	Ms.Sweta Gunjal	Formulation and Evaluation of Herbal Paste

			use for oligomenorrhea
12	SPO-12	Ms.Vaishanavi Shirsath	Preparation and Evaluation of Bath Bomb from ethanolic extract of Delonix regia leaves
13	SPO-13	Mr.Vyankatesh Katule	Formulation and Evaluation of fast dissolving buccal film for Antihypertensive drug
14	SPO-14	Ms.Sakshi Bhalerao	Isolation and purification of hyaluronic acid from Ipomoea batatas.
15	SPO-15	Ms.Saakshi Sangale	Current Development in Bioanalytical Sample Preparation Techniques
16	SPO-16	Ms. Mansi Khabiya	Herbal Guggul ointment formulation act as penetration enhancer
17	SPO-17	Pooja Kadam	Design and Development of value added herbal delivery system for topical treatment of periodontal disease toothpaste and chewable film.
18	SPO-18	Ms. Apurva Torne	Pharmacological Investigation of the Wound Healing Activity of Tecuma Unduleta Ointment in Swiss Albino Mice
19	SPO-19	Ms.Shipali Gowardipe	Formulation and evaluation of herbal anti-dandruff hair gel
20	SPO-20	Mr.Jayesh Kadam	Fabrication of nanoparticulate system for oral delivery of Naringenin against Paraquat-induced Parkinson's disorder in Wistar Rats

SPO: - Students Poster

ICTM 2023

SPEAKERS ABSTRACT

Natural Products – Biosynthesis

Chin-Soon Phan
Department of Pharmacy, National University of Singapore, 18 Science Dr 4,
Singapore 117543, Singapore.
E-mail: csphan@nus.edu.sg

Abstract

Natural products have historically made a major contribution in the search for drug candidates to pharmacotherapy. Over the years, several approaches have greatly advanced the natural products research such as metabolomics, proteomics, chemical synthesis, computational chemistry, biotransformation and ethnopharmacology. Meanwhile, as cost of genome sequencing has dropped, the numbers of sequenced bacteria, fungi and archaea have expanded dramatically, and bioinformatic methods were developed to rapidly scan whole genomes for secondary metabolite biosynthetic gene clusters. Therefore, I will talk about natural products discovery through genome mining in the post-genomic era. We are connecting chemistry back to the genes at Australia and Japan. We have discovered a new class of cyanobactins (natural products), where we identified the genetic basis of its biosynthesis, and *in vitro* biochemical characterized a new protein that catalyze unique chemical reaction (peptide modification). This has opened the door for peptide modification that can enhance antibacterial activity. Next, we used genome mining to discover targeted natural products at Singapore. The previously unexplored natural products are possible now.

Keywords: Natural products; biosynthetic gene clusters; microbial genome mining

A perspective on Traditional Medicine, and Green Pharmacy in Bhutan

Ram Chandra Bajgai

Department of Environment & Life Sciences, Sherubtse College. Royal University of Bhutan.

Abstract

Ethno-medicine formed the foundation,and the beginning of the formal healing systems in Bhutan. Since the time immemorial, the traditional medicine has played an important role in curing the diseases in the Bhutanese society. With the inception and development of conventional medical systems, traditional medicine has been an integral system of medication vis-a-vis the modern conventional treatments in Bhutan. Today, traditional medicine forms an important component in the blend of the Bhutanese culture which lures a good portion of Bhutanese populace to opt for it. Therefore, to keep this valuable knowledge alive, and to pass to posterity, hospitals in Bhutan have both traditional and modern medications. Institute of Traditional Medicine plays the role of a national nodal agency for traditional medicine. In 2017, Bhutan established MenjongSorig Pharmaceuticals Corporation Limited-a state owned pharmaceutical industry based on plant resources and traditional knowledge.

Green Pharmacy is fairly a new concept in Bhutan, nevertheless, it brings a profound idea which aptly compliments the forest conservation endeavour in the backdrop of plants being viewed as a sole source of drugs. This paper provides a detailed account of the traditional knowledge practices, and a perspective on environmentally friendly formulations in Bhutan.

Abstract: Bhutan, Traditional medicine, green pharmacy, perspective

Screening for Atrial Fibrillation in Community: Need of an Hour

Assist. Prof. Durga Bista
Department of Pharmacy, Kathmandu University Nepal

Abstract

Atrial fibrillation (AF) is the most common tachyarrhythmia and is associated with increased risk of stroke, morbidity and mortality. AF is responsible for significant number of strokes and it often remains asymptomatic until patient suffers from stroke. Screening of AF in a community level can be a critical approach for early identification of AF and minimizing the burden of stroke in a population. Knowledge regarding AF is also lacking in a community.

Community based screening was conducted in a Dhulikhel municipality. Study population of age >= 50years were screened for AF via 12 lead ECG. Obtained ECG were thoroughly reviewed by a cardiologist and potential newly diagnosed cases of AF were further sent to hospital for further confirmation. Participants were also interviewed to assess their knowledge regarding AF from the same population. AFKAT questionnaire was used to assess the level of awareness of AF in the sample population.

In total 1601 residents were screened. Majority of them (41.9%) were of the age group of 50-59 year and 57.9% were female. Greater than fifty percent (57.96%) were suffering from different diseases. Hypertension (41%) was common, among them, 49.84% were hypertensive only and the rest were with different co morbid conditions. 1611 different medicines were used for different diseases. An out of total medicines, 42.45% were cardiovascular drugs, among them, calcium channel blockers were 292 (42.69%) followed by angiotensin receptor blocker (18.25%).

The prevalence of newly diagnosed AF was 0.31% (5). AF prevalence was higher in male. The $CHAD_2VAS_2$ score of the individuals calculated during screening showed patient eligibility for the use of anticoagulants. Also the level of awareness of AF among screened population was found to be very poor.

The study providesus crucial information regarding the prevalence of undetected AF in a community. The prevalence matches with other Asian data. Suspected individual were deemed necessary to be on anticoagulation therapy to prevent risk of stroke and thromboembolic

complications. In regards to AF awareness, large-scale educational intervention should be conducted to increase the level of awareness of AF among Nepalese population and reduce risk related to AF related morbidity and mortality among public.

Kratom [*Mitragyna speciosa* (Korth.) Havil.]: Mitragynine and Its Pharmaceutical Applications

Juraithip Wungsintaweekul
Department of Pharmacognosy and Pharmaceutical Botany, Faculty of Pharmaceutical Sciences, Prince of Songkla University, Hat Yai, Songkhla 90112, Thailand
E-mail address: juraithip.w@psu.ac.th

Abstract

Kratom refers to the leaves of *Mitragyna speciosa* (Korth.) Havil. (Family Rubiaceae). It is an endemic plant found in tropical Southeast Asia, especially in Thailand and Malaysia [1]. Kratom is traditionally used for diarrhea and as a substitute for opium [2]. Its leaves have been used as chewed, smoked, or brewed as a tea. The medicine man used kratom's leaves and barks as an ingredient in the decoctions for treating diarrhea, amoebiasis, diabetes, and hypertension. Scientifically, kratom is a source of terpenoid indole alkaloids (TIAs) such as mitragynine, paynantheine, speciogynine, and 7-hydroxymitragynine (Figure 1). Kratom extract and mitragynine have been investigated in several animal models by pharmacologists. Mitragynine possesses analgesic activity, antinociceptive activity [3], anti-stress activity, muscle relaxant activity [4], and inhibition of gastric acid secretion [5]. Thongpraditchote and co-workers demonstrated that mitragynine binds to opioid receptors non-specifically and has less addiction than morphine [6]. Therefore, it highlights the relevance of mitragynine and its derivatives to be an alternative opioid analgesic drug. In addition, mitragynine has an anti-depressant effect. Moreover, 7-hydroxymitragynine has more potent analgesic activity than mitragynine and morphine [8]. This fact also suggested that 7-hydroxymitragynine has the potential to be an oral opioid analgesic.

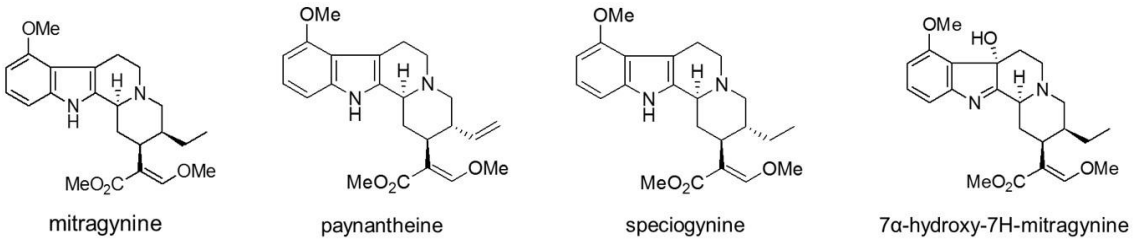

Figure 1 chemical structure of alkaloids in kratom leaves.

The pharmacological relevance of mitragynine and kratom extract changed the status of kratom from a 'narcotic list' to a 'medicinal plant' by the Narcotic Control Board of Thailand. Nowadays, kratom is legal in Thailand; selling and processing kratom for medical purposes needs to meet the Thai FDA requirements. To fulfill the knowledge of kratom in Thailand, we establish the monograph of 'kratom leaf' and 'kratom extract' according to the guideline of Thai Herbal Pharmacopoeia. In addition, the Narcotic Crops Survey and Monitoring Institute (ONCB) collected kratom leaves across Thailand. The mitragynine content was determined using the validated HPLC method. The results suggested that mitragynine accumulation in kratom depends upon the season and geographical origin. The high-mitragynine content leaves need to harvest in late summer from the South of Thailand.

The standardized kratom extract (SKE) was prepared using optimized methods of microwave- and ultrasonic-assisted extractions. The extraction process uses only water and ethanol as green solvents. The results suggested water: ethanol; 1:1 and at 720 watts was the best condition for microwave extraction. On the other hand, the ultrasonic gave the best yield at 40% output, and the solvent was water: ethanol; 2:1. The SKE was used as an ingredient in the formulations of the tablet, oral syrup, lozenges, instant dry powder, topical patch and transdermal patch. Toxicity is evaluated, and the irritation test is then examined. Human safety and efficacy have to determine at the clinical level to meet the FDA requirement.

Acknowledgement

The authors would acknowledge the Narcotic Crops Survey and Monitoring Institute, Office of the Narcotic Control Board (ONCB) for an excellent collaboration. The authors thank for the Prince of Songkla University and the Agricultural Research and Development Agency for financial supports.

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Safety and Quality of Traditional Herbal Medicine

Professor Dr. Mohammad Kamil
Director General
Lotus Holistic Health Institute Abu Dhabi, UAE

Abstract

In spite of recent developments of antibiotics and newer synthetic drugs, a vast majority of people depend on traditional medicines for their primary healthcare needs and it can safely be presumed that a major part of traditional therapy involves the use of plant extracts or their active principles. In recent years with ever-growing commercialization in the field of herbal medicines, there has been an instant demand for quality control of the drugs used in this system. The studies on the identity, purity, and quality of the genuine drug will enhance information in checking the adulteration. A set of standards would no doubt be a deterrent to substitution and adulteration and also an aid for 'Drug law Enforcement.

Modern chemical and pharmacological research have greatly contributed to our understanding of herbal medicines. The quality of herbal medicines may be controlled by understanding their pharmacognosy and applying pharmaceutical methods. Herbal medicines may have intrinsic toxicity. It can also be contaminated and adulterated with spurious plant materials and synthetic drugs. Interactions with prescription drugs are also possible. Detailed effort and research is needed to improve the quality and safety of herbal medicines.

In the present paper an attempt has been made for a sequential study of the Quality Control of Herbal Medicinal Products (HMP) starting from the Selection of Medicinal Plants; Good Agricultural Practices; Cultivation; Good Field Collection Practices; Organized and Unorganized Drugs; Source and Period of Collection; Identification; Storage; Chemical Standardisation; Assay; Good Manufacturing Practices (GMP); Good Medicinal Plant Practices, Pharmacological study to Clinical Approach, with special reference to maintaining Standardisation at each and every stage. Besides the above protocols, this study deals with a preliminary examination of a medicinal plant, its morpho-anatomical, pharmacognostic, physicochemical, and analytical parameters, foreign organic matter, pesticide residue, radioactive and microbial contamination, chemical assay,

Fingerprinting of the successive extractives using Accelerated Solvent Extractor (ASE), Spectroscopic and spectrometric techniques e.g. IR, UV, TLC & HPLC, GC/MS, LC/MS, phytochemical screening, quantitative analysis of inorganic constituents through Atomic Absorption Spectrometer and over an above discussed in detail the challenges of standardization with special reference to marker compounds in plant species and their fingerprinting.

Different stages, i.e Quality control studies of Raw Medicinal Plants, Controlled Studies of Method of Processing, Quality Control Studies of Finished Products, and Standardisation Procedures at each stage from the birth of the plants up to the clinical application of herbal medicine will be dealt with reference to some medicinal herbs. An emphasis has been given on the protocols which are required for the Registration of Herbal Medicinal Products (HMP).

Exploring Value Addition of Natural Products for Sustainable Development in Sri Lanka

P A Paranagama
Department of Chemistry, Faculty of Science, University of Kelaniya and Institute of Indigenous Medicine, University of Colombo, Sri Lanka

Sri Lanka is one of the smallest countries that could be identified as biodiversity rich hotspots in Asia. It may be also mentioned that natural product research is moving forward impressively here due to the increase in interest in the exploration of plants and by the fact that plants essential for sustainable development of bioactive compounds. However, humankind is not sufficiently aware that natural products drug discovery from plants is important for the new generations as a tool for their health care.

We all know that plant natural products have served as a major source of drugs for centuries and a large number of bioactive molecules have already been isolated and characterized from natural products of Sri Lankan origin. Potentially, however, many more are yet to be discovered. What we have is only the *tip* of the *iceberg.*

Interest in the discovery of new bioactive compounds with diverse chemical structures has received great attention. It has been reported that less than 10 % of the world's biodiversity has been evaluated for potential biological activity even though over 60 % of the approved drugs were of natural origin or derivatives of natural compounds. Therefore, more attention should be focused on isolation of secondary metabolites from plants with fascinating biological activity.

Even though the last two decades has seen an extensive decline in natural product research, natural products have been a creative and unmatched source for new lead bioactive compounds. With the recent growing pressure for the discovery of bioactive natural products many researchers concentrate their research on diversity of chemical structures, biological activities, use of bioactive compounds as biochemical / molecular probes and development of novel techniques to detect biologically active compounds etc. Therefore, innovative research on plants has been improved with modern-day technology and better honed for natural product discovery. Recent innovative approaches for uncovering the target of new bioactive natural products have been identified as an important contribution for the national development of the country and the innovative methods respond to the country's needs and expectations. In Sri Lanka, many

researchers who are engaged in research on plant natural products especially with endemic plants. These research discoveries of natural products should be able to transform into applications or technological innovations in order to strengthen the interaction between research and the public needs.

It is well known that many medicinal plants are used as the main sources of natural products in the country. Cinnamon, lemon grass, citronella, mango, eggplant, tea are some of the plants used for the value addition in this study. The results revealed that essential oils and the extracts of medicinal plants show anti-inflammatory, anti-obesity, anti-tyrosinase and anti-oxidant activities indicating these are the potential candidates for development of value-added natural products in Sri Lanka.

Medicinal Plants of Nepal: A Treasure of Nature's Green Pharmacy

Tirtha Raj Pandey, Ph. D.
National Herbarium and Plant Laboratories, Godawari-3, Lalitpur, Nepal
tirtharpandey@gmail.com, tirtharajpandey@kath.gov.np

Abstract

Situated in the lap of the highest Himalaya, Nepal is endowed with rich variety of biodiversity. These diverse units of plants and animals have played a crucial role in the prosperity and health of its people since ancient time. of the estimated 6500 species of flowering plants, more than one third species are being used either directly or indirectly as medicinal for the cure of different ailments in various type of traditional medicinal systems including Ayurveda, Tibetan traditional medicine, Unani, homeopathy and other local healing practices. Nepal is also rich in terms of culture and ethnicity with more than 125 dialects and ethnic groups. Together with this ethnic diversity and complementing diversity of medicinal plants comes a vast knowledge of plants utilization. Medicinal plants not only give immediate service in disease remedies but also in supporting local economy through income generation out of selling the herbal products, processed or raw. Moreover, they are also a component of green economy for the government too. Bioprospecting these wonders of nature for novel chemicals that can have profound impact on current medical applications and conservation and sustainable utilization of such resources is the demand of time currently.

Keywords: medicinal plants, ethnobotany, bioprospecting, biodiversity.

Academic Paper Presentation

ICTM2023

AP-01 To AP-15

AP-01

In-Vitro Estimation of Antioxidant and Antidiabetic Potential of Plant Extracts.

Akshaykumar K Daswad[1]*, Dr. S. J. Wadher[2]

[1]School of Pharmacy, S.R.T.M. University, Nanded-431606

[2]Director, School of Pharmacy, S.R.T.M. University, Nanded-431606

*Presenting Author email ID: adaswad@gmail.com

Abstract

Medicinal plants have always been the principal sources of medicine worldwide. India sustains a very rich traditional medicinal plant wealth and inherits unique plant and animal communities. Free radicals are implicated in many diseases like diabetes, inflammation, cancer, which leads to gained more attraction of antioxidant therapy. Diabetes is a metabolic disorder which results due to deficiency in insulin and its metabolism. At present, the prevalence of Diabetes has increased worldwide and predicted to increase to greater extent in future generations. Among various therapeutic approaches implemented to prevent diabetes is to regulate the blood glucose levels by various mechanisms.

Keywords: Physicochemical parameter, Antioxidant effect, Anti-diabeticactivity, α-amylase enzyme.

AP-02

A Preliminary Pharmacognostical and Phytochemical Study of Premna Latifolia. Roxb. Leaves, A Herbal Drug From Traditional System of Medicine.

Mantri KO[1], Vivek P[2], Manojkumar N[3], Remadevi R[4].

Abstract

Premnalatifolia Roxb. (Malayalam - Kattappa) is used in traditional system of medicine for its wound healing and Anti-haemorrhoidal property, especially in bleeding piles. *Premnalatifolia*leaveswere collected, identified, shade dried and powdered. A preliminary pharmacognostical analysis shows that *premnalatifolia*is a low bushy tree or shrubby, with leaves 5 – 15 cm long, usually ovate, sometimes elliptic,entire.Microscopy of leaves revealed trichomes, epidermis, parenchyma cells (palisade & spongy), xylem, phloem, Glandular hairs and secretory cells, diacytic stomata. In phytochemical analysis water extraction was higher than the alcohol extraction. Also tannins and steroids were detected in all the 3 extracts steroid, flavanoids in water and alcohol extract with phenol in water and alcohol extract were detected. Tannins are said to be having quality of wound healing and anti- haemorrhoidal .Also flavanoids are good for heart and blood vessels, hence *premnalatifolia* may also be useful for improving circulation and treating varicose veins.

Keywords: *Premnalatifolia* Roxb., Anti-haemorrhoidal, Wound healing, Tannins.

AP-03

Preparation of Herbal drugs as per Ayurveda

Dr. Shrihas Chandrashekhar Pagare.

Asst. Professor, Agadtantra Department

SMBT Ayurved College and Hospital.

Abstract

In Ayurveda Herbal drugs are prepared under separate branch known as Bhaishajyakalpana. There are five main forms of medicine are prepared and some other different forms are developed from them. Ayurved science made their herbal medicines on the basis of their own Siddhanta. The thinking behind the preparation of Herbal medicine is much different than modern science. On which basis Ayurveda prepared medicine and what problems are faced in today's era are explained in this Article.

Keywords- Herbal drugs, Sanrakshan.

AP-04

Development of Chromatographic Method for the Identification and Quantification of Herbal Formulations

Mr. Kunal S Surwade[1], Dr. Md. Rageeb Md. Usman[2] and Dr. G. V. Vadnere[3]

[1]Reserach Student, Smt. S. S. Patil College of Pharmacy, Chopda, India.

[2,]Asso. Professor, Smt. S. S. Patil College of Pharmacy, Chopda, India.

[3,] Principal, Smt. S. S. Patil College of Pharmacy, Chopda, India

E-mail address: pkunal.surwade@gmail.com

Abstract

For the simultaneous quantification of curcumin and quercetin in polyherbal formulation, fast, sensitive, accurate, and selective high performance liquid chromatography and high-performance thin layer chromatography techniques were devised. These procedures were tested for linearity, range, precision, accuracy, and robustness, and found to be valid. Both techniques were used to determine the quantities of curcumin and quercetin in a polyherbal mixture and were compared. High performance liquid chromatography determined that the polyherbal formulation had 9.4 mg of curcumin and 0.60 mg of quercetin, whereas high performance thin layer chromatography determined that the same formulation contained 9.2 mg of curcumin and 0.66 mg of quercetin. Curcumin and quercetin were detected and measured accurately using both approaches.Synergistic herbal formulation, high-performance liquid chromatography, high-performance thin-layer chromatography, curcumin, and quercetin.

Keywords- HPTLC,Polyherbal formulation, liquid chromatography.

AP-05

Synthesis and Biological Evaluataion of Novel Substituted Chromen Derivatives for Their Anti-Cancer Activity

Manjusha Sanap*****

E-mail: manjushagite23@gmail.com

Abstract

The plethora subscribed in this research has been directed towards the synthesis and anti cancer evaluation of the novel substituted chromen derivatives. The title compounds were synthesized by using conventional synthesis. The structure of the synthesized compounds were established by using FTIR, 1H-NMR, and MS. The synthesized compounds was then evaluated for their anti-cancer potential by using HeLa cell lines using Trypan Blue assay. The compound A2, A4 and A5 shows promising anti-cancer activities as compared to the standard drug.

Key-words: Chromen, synthesis, anti-cancer activity, cell lines

AP-06

An Ayurvedic remedy -- Fasting for Healthy Lifestyle

Dr Pramod. R. Kharkar

SMBT Ayurvedcollege & Hospital, Nandi hills, Dhamangaon, Igatpuri

Abstract:

The Concept of Fasting for maintain the good Health is highlighted in the Ayurveda. The common perception is that fasting means abstinence from food. Reduction of food intake gives the break to digestive system,, leads to repair & rejuvenate itself. However not only the food fasting is proposed in Ayurveda but other types of fasting are also covered like Control over Breath _ Pranayam, Control over Speech _ Mounvrat, Control over Physical Activities _Dhyanmudra.These practices lead to Healthy mind in a healthy body

AP-07

Phytochemical and HPTLC Studies of SesbaniaGransdiflora L.

Ms. T.B. Shevante[1] and Dr. Dinkar.G.Mundhe[2]

[1]Professor, Pacific University, Udaipur, Rajastan, India.

[2,] Research Scholar, Pacific University, Udaipur, Rajastan, India.

E-mail address: lataashevante@gmail.com

Abstract

The plant Sesbaniagrandiflora(L).Pers, belonging to family Fabeaceace,commonly known as agathi has great medicinal value in Indian traditional medicine for treatment of wide range of diseases. Sesbaniagrandiflora(L).Pers is fast growing 3 m to 7 m height, rehular leaves with white or pink characteristic flowered tree. the fruits are like flat,long and thin green beans. The present study deals with the phytochemical investigation on leaves of Sesbaniagrandiflora for presence of saponins,tannins,terpenoids,flavonoids, polyphenols,steroids etc.. Extraction with soxhelt extraction apparatus and macro-microscopical parameters are carried out. The anatomical characteristics were observed and photographed by taking various sections of root. Preliminary phytochemical evaluation of the aqueous extracts revealed that presence of carbohydrate, proteins, flavonoids, alkaloids, tannins and glycosides. The HPTLC technique was used for qualitative determination of components from methanolic extracts of leaves solvent system Toluene;EthylAcetate;Formic acid Volume 5:4:1 that revealed the Rf values for terpenoids, flavonoids,gallicacid,quercitine.this chemical compounds are responsible for Antidiabetic activity

AP-08

Extraction of Phytoconstituents, Formulation, Validation and Stability Studies of Antiacne Herbal Gel

Ms. Gayatri M. Jejurkar[1], and Dr. M.J. Chavan[2]

[1] PhD Research Scholar, Amrutvahini College of Pharmacy-422 608, Sangamner, Maharashtra, India.

[2,] Research guide, Chairman and Head place of research, Principal, Amrutvahini College of Pharmacy-422 608, Sangamner, Maharashtra, India.

E-mail address: gayatrijejurkar87@gmail.com

Abstract

Inthis research, an attempt has been made to find the potential of selected medicinal plant towards their utility as a pharmaceutical aid. The plant was identified, authenticated and utilized for further research work. Extraction of plant material was completed, Pharmacognostic as well as phytochemical parameters were studied, qualitative phytochemical analysis of all the extracts were performed. During the research various Physico-chemical characteristics for the isolated extracts were determined. Quality control and safety parameters of the isolated extracts were studied as per WHO and ICH guidelines. Herbal plant reports therapeutic as well synergistic effect that has been recognized in medicine. Considering this factor, three different antiacne gel formulations were prepared by using three different extracts of selected plant. These formulations were evaluated for their efficacy, Stability and Quality. Analytical studies of the formulations were also completed.The objective of this study was to formulate and evaluate herbal antiacne gel formulation for the delivery of the active constituents present in plants. The plant extracts were utilized for the gel preparation. From the significant results obtained in this study, it is concluded that extracts possess excellent gel-forming properties. This proves that the selected plant and their parts are excellent sources of pharmaceutical aids. The antimicrobial activity of prepared gel showed significant effect against various pathogens. The current herbal gel is a unique gel which offers broader antimicrobial action in association with various complementary properties which not only prevent co-existing conditions but reduces further need of drugs which perhaps is the primary goal of an ideal pharmacotherapy.

Keywords: Extraction, antimicrobial activity, herbal gel.

AP-09

A Critical review of Ashwagandha (WithaniaSominifera)

- Dr. Sakshi Prashant Waghmare

- Associate Professor, RachanaSharirdepartment, SMBT Ayurved College, Dhamangaon, Igatpuri, Nashik

Abstract

This study is based on the Critical review of "Ashwagandha" (WithaniaSomnifera) and its various properties like Adaptogenic/anti-stress, anti- tumor, having cognition Promoting effect, useful in neurodegenerative diseases. It has GABA mimetic effect, anxiolytic effect. It is an anti-inflammatory and antiarthritic agent.

Keywords:-Rasayana, "Ashwagandha" (WithaniaSomnifera), Properties of Ashwagandha.

AP-10

Neuroprotective impact of bioactive compounds on scopolamine-induced amnesia model

Rahul R. Sable[1*], Ghanshyam B. Jadhav[2]

[1]Ph.D. Research Scholar, Department of Pharmacology, MVP's College of Pharmacy, Nashik, Affiliated to SavitribaiPhule Pune University, Maharashtra, India – 422002

[2]Associate Professor, Department of Pharmacology, MVP's College of Pharmacy, Nashik, Affiliated to SavitribaiPhule Pune University, Maharashtra, India – 422002

Abstract

Progressive memory loss is a symptom of many dangerous neurological diseases, such as Alzheimer's disease and forgetfulness. The goal of this study was to see how well bioactive molecules worked in animal models of amnesia caused by scopolamine. Ginger has a lot of Zingerone (Zn), which makes up about 9.25% of the total amount. Gramine (Ga) is a nonterpenoidindole alkaloid that is found in plants like barley and wheat. It is also known as donaxine. Acute toxicity tests were done on both of the drugs. As an animal model for study scopolamine induced amnesia in rat were selected and as behavioural evaluation the Morris water maze (MWM) and elevated plus maze were used to measure behavioural changes (EPM). In case of biochemical evaluation were the glutathione (GSH), lipid peroxidation (LPO), catalase (CAT), and AchE in the serum levels were performed.Histopathological imaging also performed. The animals were administered as per following grouping Zn (75,125,250 mg/kgp.o.) and Ga (13, 27.5,55 mg/kg), standardadministered donepezil (1 mg/kg p. o.) In This Zn, Ga and Donepezil reading demonstrate significant improvement in antioxidant defence and reversed the biochemical (LPO, GSH), enzymatic (AchE) and behavioural changes which was observed by MWM and EPM as compared to Positive control so as per above observation Zn and Gasignificantly fixed the memory problems caused by scopolamine so based on the above discussion, both drugs may be able to fight Alzheimer's.

AP-11

Natural Product's Isolation and Extraction -Between Conventional and Modern Techniques – Review.

Bharti Parmar[*1], Dr Raviraj Gujarati[1]

[*1]Lead Pharmacy, SVPIMSR (SVP Hospital) Ahmedabad, Gujarat.

[1] Project Head, SVPIMSR (SVP Hospital) Ahmedabdad, Gujarat.

E-mail address: Bkparmar4@gmail.com

Abstract

Natural medicines have been adopted for the treatment and prevention of diseases and ailments since the dawn of mankind. The World Health Organization (WHO) estimates that more than 80% of people worldwide rely on traditional medicine for their major healthcare requirements. Men switched to ethnopharmacognosy when unpleasant effects and microbial resistance to chemically made medications emerged. The invention of efficient and targeted approaches for the separation and extraction of innovative natural products is of the utmost relevance nowadays. This review's principal objective is to provide readers a complete grasp of the analytical processes(Conventional and modern techniques), which include typical phytochemical screening assays, extraction, isolation, and characterization of natural products from medicinal plants. This research aims to provide alternatives for the best approaches that may be applied in drug development and associated research topics. Students, researchers, and project managers may make knowledgeable judgments about the approaches to apply in their projects through the use of a basic literature review procedure on the methodologies that are frequently used in drug discovery from natural sources.

Keywords: Phytochemical methods, natural products, extraction, isolation

AP-12

Development and Evaluation of Oral Polyherbal Formulation for Litholytic Activity Ethylene Glycol Induced Urolithiasis in Wistar Rats

Ms. Jadhav A.S., Dr. Khadase C.D., Dr. Jadhav S.L.

Abstract

The aim of current research work is to formulate oral polyherbal formulation utilizing Amaranthus Viridus, celosia argentea. Many Herbal remedies are available for the treatment of urolithiasis.Urolithiasis is a common health problem with increasing prevalence of up to 20% all over the globe. Calcium oxalate stones are the most common type of nephrolithiasis. After in vitro treatment diameter was found to get reduced by 1 mm. For In vivo analysis L. Wistar rats divided into four groups containing six in each and kept in metabolic cages individually for entire duration of the experiment. Group I served as normal. Group II received ethylene glycol for 30 days. After administration of ethylene glycol for 15 days, group III received cystone, group IV were treated with aqueous extract of polyherbal Formulation. On 30th day of the experiment, animals were housed in metabolic cages and 24 hour urine samples and serum samples were collected. The urine and serum samples were used for estimation of biochemical parameters such as calcium, phosphorus, creatinine, uric acid was determined. Deposition of crystal is indicated by increased blood levels and decreased urinary levels of biochemical parameters such as creatinine, uric acid with a decrease in blood level of calcium and increase urinary levels of calcium. Administration of aqueous polyherbal extract enhanced the excretion of biochemical parameters and decreases their concentration in blood. In conclusion, the data revealed were suggested that polyherbal formulation possess significant antiurolithiatic activity. Urine was collected using metabolic cage and was tested for parameters like urinecalcium (4.29±0.34), oxalate (2.73±0.41), Citrate (0.95±0.15). Also blood was collected from retroorbital plexus and was tested for serum creatinine (0.89±0.08), serum calcium(8.35±0.44) and was compared with marketed preparation cystone(serum creatinine (0.73±0.06), serum calcium(7.5±0.39) was found more effective. It has been good scope in future for the treatment of kidney stone health of public.

Keywords- Litholytic, Urolithiasis, polyherbal, urine phosphorus, creatinine, urine calcium, uric acid, cystone, kidney stone.

AP-13

"A comparative evaluation of effect of novel gingival retraction paste and commercially available paste on gingival dilation"

Dr. Abhijit Tambe

Abstract:

The purpose of the study is to formulate innovative gingival retraction paste using combination of various biocompatible ingredients. To evaluate the effect of novel gingival retraction gel and commercially available paste on gingival dilation. (In vitro study)

Keywords: gingival dilation, paste, biocompatible ingredients, gingival retraction.

Materials and Methods: The formulation and development using various natural ingredients were finalized. Various properties of new gingival retraction paste are evaluated and compared with commercially available gingival retraction pastes. Mainly consistency, swelling index, PH and colour stability were assessed.

For in-vitro analysis, a gingival sulcus model was made using a polymer frame filled with silicon. A pressure sensor and a sulcus fluid simulation were embedded into silicon chamber to evaluate the pressure generated by two different retraction materials with novel gingival retraction gel and commercially available paste. Normality of numerical data will be checked using Shapiro – Wilk test or Kolmogorov-Smirnov test.

Results: Various properties of new gingival retraction paste are evaluated and compared with commercially available gingival retraction pastes. Gingival retraction pastes generated pressures that ranged from 82.74 ± 29.29 kPa to 524.35 ± 113.88 kPa.

Conclusion: Pressure generated by novel gingival retraction gel is comparable with commercially available paste. The novel gingival retraction paste can be used for gingival retraction during various dental treatment procedures

AP-14

Vanilla Cultivation- A Promising Road Ahead For India

Rashmi H Mishal[1] Dr. Harshavardhan B Mishal[2]

[1]HOD (I/c), D. Pharm, GES's Sir Dr. M. S. Gosavi College of Pharmaceutical Education and Research, Nashik.

[2]HOD, MET's Institute of D. Pharmacy, Nashik.

E-mail address: mishalrashmi@gmail.com

Abstract:

India has been the land of choicest spices and the best aroma breezes from its soil from immemorial time. The rarest spices and condiments of this nation has lured many mariners from around the world and they were fascinated by the sweet fragrance, pungent tastes and oleoresin qualities of the spices like cardamom, pepper, nutmeg, saffron and vanilla. Vanilla is an orchid, cultivated for its pleasant flavour. In the context of unprecedented crises in farm sector contributed by host of factors vanilla has become a lantern of hope to farmers assuring them of comparatively better prospects in terms of profit for their investment and efforts. There is an international market of 3000 tonnes of Vanilla beans. This spice was introduced to India as early as 1835. Its commercial cultivation is now restricted to Wynad of Kerala and Nilgiris of Tamil Nadu. Recently, the demand for natural vanilla is on the higher side. Vanilla has a good scope for development in India considering the domestic demand & the export potential. It can be grown as an Intercrop in coconut & areca nut gardens. Since the price of vanilla beans is quite high, the cultivation of vanilla is a very attractive proposition for Indian farmers. This oral presentation throws light on this prospective aspect of vanilla cultivation.

AP-15

Development, Optimization & Evaluation of Surface Modified PLGA Nanoparticles Containing PPAR-γReceptor Agonist

Ms. Punam D. Bagad[1], Dr. S.V. Amrutkar[2]

[1,] Assistant Professor, GES's Sir Dr. M. S. Gosavi College of Pharmaceutical Education and Research, Nashik, India.

[2,] Principal, GES's Sir Dr. M. S. Gosavi College of Pharmaceutical Education and Research, Nashik, India.

E-mail address: punambagad@gmail.com

Abstract

The aim of the present work was to develop, optimize and evaluate surface modified PLGA nanoparticles containing PPAR-γ receptor agonist for treatment of diabetic retinopathy. Present treatment of DR is invasive and associated with pains. Therefore; the main objective behind study was to develop simple topical formulation for betterment of DR. Surface modification was performed to improve the drug delivery efficiency to the retina and it was done by using polysorbate 80. Surface modified PLGA nanoparticles were prepared by single emulsion solvent evaporation method and optimized for various variables (i.e. PLGA concentration, polysorbate 80 concentration and number of cycles) by employing 3-factor 3-level Box-Behnken statistical design. Effect of these variables (dependent) was observed on particle size, PDI and entrapment efficiency. Optimized batch was spray dried and characterized for particle size, PDI, entrapment efficiency, drug loading efficiency, *in-vitro* drug release, product yield, total drug content, zeta potential, FT-IR studies, XRD, SEM, DSC, sterility testing and stability studies. Mean particle size and PDI for optimized batch was found to be 163 nm with 0.286 PDI and entrapment efficiency was found to be 91%. FT-IR and DSC studies showed the positive results which indicating that there were no interaction between the drug and polymer. In conclusion; PPAR-γ agonist nanoparticles were successfully prepared and evaluated for its stability but further *in- vivo* evaluation is required to prove its effectiveness.

Keywords: PLGA Nanoparticles, polysorbate 80, 3^3 Box-Behnken statistical design, solvent evaporation method.

ACADEMICIAN POSTER PRESENTATION CODE APO-01 TO APO-11

APO-01

Pharmacological Evaluation of Plant Extractsfor Antidiabetic Effect

Dipali Pandurang Shelke[1]*, Dr.VijayendraSwamy S.M. [2]

[1]Channabasweshwar Pharmacy College, Latur

[2]Director, S S R College of Pharmacy, SILVASSA – 396230

Email ID- deep.shelke11@gmail.com

Abstract

Diabetes mellitus is a metabolic condition defined by a rise in blood glucose levels as a result of changes in lipid, protein, and carbohydrate metabolism.*D. falcata* is used in Indiaalso in other tropical nations by traditional practitioners as a folk medicine for treatment of diabetes mellitus. We demonstratedtheantidiabetic effect of the of*D. falcata*extracts in streptozotocin induced diabetic rats. The aim of the current study was to investigate the antidiabetic effects of *DF*extracts on streptozotocin induced diabetic rats.

Keywords: Anti-diabetic effect, Diabetic Rats.

APO-02

Drug use patterns in a respiratory disease centre among patients with FEV1/FVC > 70%

Gulam Muhammad Khan[1*2*], GulamMoiz Khan[1], Aashish Bhattarai[3], Anish Luitel[3], Sangam Subedi[1],Hamida Miya[4], Dr.Gulam Anwar Khan[5,]Sikshya Panta[6],Dr. Chandra Prasad Acharya[7], Dr.Vivek Dave[8]Dr.Swapnil Sharma[2]

[1] School of Health and Allied Sciences, Pokhara University, Kaski, Nepal

[2]Department of Pharmacy, Banasthali University, Rajasthan - 304022, India

[3]Department of Pharmacy Kathmandu University, Dhulikhel – Kavre

[4]GP Koirala National Centre for Respiratory Disease, Dulegaunda, Tanahun, Nepal

[5]Chitwan Medical Collge, Bharatpur, Chitwan, Nepal

[6]Pharmacy In charge at Metro city Hospital, Pokhara

[7]Manipal Teaching Hospital, Pokhara

[8]Departments of Pharmacy, Central University of South Bihar, Gaya, India

Email gulamkhan@pu.edu.np

Abstract

Obstructive lung disease is commonly caused by asthma, COPD, cystic fibrosis, and bronchiectasis.[1] The complexity of prescribed drugs for obstructive lung disease and low rates of medication compliance poses a major challenge to their effective management resulting in suboptimal patient care.[2] Non-compliance results in high medical and social costs and the lack of effective methods to deal with it have encouraged interest in the complexity of disease management.[3,4] Treatment of lung diseases is crucial and drug therapy needs to be assessed to determine the clinical outcomes. Therefore, this study aimed to identify the drug use patterns in a respiratory disease centre concerning FEV1/FVC in terms of prescribing indicators, patient care indicators, and drug use patterns.

Keywords: Drug prescribing, Drug use patterns, FEV_1, FVC, Obstructive lung disease

APO-03

Treatment of Depression with The Herbal Medicines and Other Therapies

Arti A Ingole[1], and Mitali Y. Patil[2]

[1] Assistant Professor, B.K. Patil Institute of Pharmacy, Taloja, Mumbai

[2] Principal, B.K. Patil Institute of Pharmacy, Taloja, Mumbai

Abstract:

Depression is a common psychiatric disease and one of the main causes of disability worldwide. In spite of certain developments in this field, chemical and synthetic drugs used for the treatment of depression may disrupt the treatment process due to numerous side effects and high cost.

Today, the goal of using a potential method for treating depression involves the use of medicinal and phytochemical plants, which have many therapeutic benefits. Studies have shown that medicinal plants affect the nervous system and exert antidepressant effects in various ways, including synaptic regulation of serotonin, noradrenaline and dopamine, and inflammatory mediators.

APO-04

Traditional Uses of *Shunthi* (*Zingiberofficinale*rosc.) & it's Health Benefits.

Dr.Manisha P. Gavit
B.A.M.S., M.D. (AYU)., PhD(scholar)
Associate Professor, SMBT Ayurved College & Hospital, Dhamangaon, Nashik
E-mail address: manisha.24588@gmail.com

Abstract

Shunti (Zingiberofficinalis) is an ancient medicinal plants belonging to Zingiberaceae family. It is one of the earliest known treasured spices esteemed for its pungency and aroma, viewed as a healing gift from god by Indian *Ayurvedic* systems. This plant is used around the whole world in food as a spice in dried and fresh conditions for enhancing the flavor, spicy and pungency taste to meal. India is the largest producer and consumer of *shunti* contributing about 31% of total global production followed by China, Nepal, Indonesia, Nigeria and Thailand. India produces 6,83,000 tons of ginger per annum that is almost 1/3rd of worlds total population. 30% of total production of ginger in India is transferred to dry ginger, 50% is taken as fresh ginger and the rest part is used as seed materials. *Adrak*&*Shunti* both are rich in phenolic compounds, terpenes, polysaccharides, lipids, organic acid, vitamins, and dietary fibers. This paper aims to highlight the Traditional uses of *Shunthi* (*Zingiberofficinale*Rosc.) & its health benefits.

Materials & Methods: All Traditional uses, health benefits and references of *Shunthi* (*Zingiberofficinale*Rosc.) was observed from different *Ayurvedic* texts.

Keywords: *Shunthi*&*Adrak* (*Zingiberofficinale*Rosc.), Traditional uses, Health benefits, chemical constituents.

APO-05

Herbal Medicines and Lifestyle Management for The Treatment of Polycysticovarian Syndrome

Mrs.Archana Hiwase[1] and Mrs Mitali Patil[2]

[1]Assistant professor, BKPatil Institute of Pharmacy, Taloja, Navi Mumbai, India

[2]Principal, B K Patil Institute of Pharmacy, Taloja, Navi Mumbai, India

Abstract

Polycystic ovary syndrome is the measure endocrine disorder in female which leads to infertility. At the reproductive age of females, it is the main endocrine disorderThis review is based on the different therapies like herbal drugs treatment, lifestyle management, exercise and yoga for the treatment of Polycystic ovary syndrome.

Keywords: metabolic syndrome, Polycystic ovary syndrome.

Result and Discussion

Different pharmaceuticals treatment has been proposed for PCOS however side-effect of long-term treatments and their probable Low efficacy have made complementary and alternative treatment of valuable option recent report Have increase used of complimentary treatments herbal medicine as a part of complementarymedicine.

Alternative and complimentary treatment of PCOS by herbal medicine and by changing their lifestyle. Different medicine used for treatment of PCOS are Cinnamon, Turmeric, Ashwagandha, Liquorice,Amla, Sesameseed, Tulsi, Pumpkin seed, greentea, Spearmint tea, Flexseed, Shatavari, Aloe vera, Chamoli and Managing by changing lifestyle exercise, dietary intake, meditation, yoga, Suryanamaskar, acupuncture therapy.

APO-06

Qualitative and Quantitative Analysis of Flavonoid Content from Selected Plant Extract

Ms.Gayatri M. Jejurkar, and Dr. M.J. Chavan[2]

[1] PhD Research Scholar, Amrutvahini College of Pharmacy-422 608, Sangamner, Maharashtra, India.

[2,] Research guide, Chairman and Head place of research, Principal, Amrutvahini College of Pharmacy-422 608, Sangamner, Maharashtra, India.

E-mail address: gayatrijejurkar87@gmail.com

Abstract:

Medicinal ingredients have existed in nature from thousands of years, and many modern drugs have been derived from natural sources, based on their use in traditional medicine

The aim of the present work is to develop a simple, sensitive, accurate and precise UV-visible spectrophotometric, HPLC and FTIR method for the identification and estimation of flavonoid from selected plant extract.The objective of this study was to extract and evaluate the phytoconstituent (flavonoid) for the delivery of the active constituents present in plant.

Materials and Methods

1) *Materials*: The selected plant is a wild species found at higher altitude of the hills which were collected from the southern region of India. For the identification and authentication of the plant material, the prepared herbarium and plant specimen were identified and confirmed by authenticated plant taxonomist. The herbarium of plant also authenticated by Botanical Survey of India, Pune, Maharashtra.

Conclusion:

The FTIR shows high degree of assurance with proposed phytoconstituent by detecting the nearest functional group comparing with standard spectra (fig. 1).

This HPLC and UV- Vis spectrophotometric technique is quite simple, sensitive, accurate and precise as per ICH Q2(R1). The method was validated and found to be satisfactory. The % RSD for the validation parameters was found to be less than 2%. Hence proposed method may be used

for routine analysis. Accuracy of proposed method was confirmed by performing accuracy studies that showed the results within the range. Precision of proposed UV method was confirmed by performing intra-day and inter-day precision. Robustness of proposed method was confirmed by performing equipment, laboratory and analyst change and that shows the results to be the within range. Which indicates the excellent scope of the method for the determination ofphytoconstituent.The present study concluded that the selected plant is rich in flavonoid.

APO-07

A Review of Ayurvedicdrugs (Herbs) Used for External Application in the Treatment of Vyanga (Melasma)

Dr.Pallavi alias PriyankamRaosaheb Patil[1]

Dr.Ujwala M.Divekar[2] And.Dr.Smita Dhurde[3]

1. Associate Professor, Samhita Siddhant Department, SMBT Ayurved College, Dhamangaon and Ph.D Scholor Samhita Siddhant Department CSMSS Ayurved College, Aurangabad.
2. Guide and Associate Professor, Samhita Siddhant Department CSMSS Ayurved College, Aurangabad.
3. HOD and Professor, Samhita Siddhant Department CSMSS Ayurved college, Aurangabad

Abstract

Ayurveda has defined health as all the basic constituents of the body are in the equilibrium state and the person having the feeling of *prasannaaatma, indriya*and*manas(*Wellbeing of soul,body and mind*).* Thisis possible only when the person has feeling of self and social acceptance, self-confidence. Smooth and glowing skin increases the beauty and hence the self-confidence.*Vyanga*is a disease, which decreases the glowing complexion of the face and affects the skin. Among many diseases concerned with the cosmetic values,v*yanga*is common disease known to us from thousands of year. As per studies it is most common pigment disorder in Indians. The prevalence of melasma varies between 1.5%and 33.3% depending on the population. In *CharakSamhita, Acharya Charak*has included *vyang*a as a *raktajvyadhi. Acharya Charak*a described the etiological factor for *vyangavyadhi*is mostly mental and emotional disturbances i.e.*shokakrodha*etc. Now a day in the fast developing era and changing lifestyle people prefer fast food and avoid healthy food which causes disturbance in *tridosha*which leads to *vyanga.* In modern medical sciences topical steroids have been using which leads to adverse effects on skin like irritation,rashes etc. Drugs with *raktaprasadak*(blood purifying),*twachya*(conductive to skin),and *Varnya*(improving complexion) properties are commonly used for the treatment of *vyanga.*They help to pacify increased *vata pitta doshas* and helps to cure disease*Bahiparimarjanchikitsa*i.e. external application has major role to play in skin disorders.*Ayurvedic*medicine and *nidanaparivarjana*are helpful in such diseases as

longlasting therapy without side effects.In this study Ayurvedic herbs used for external appliacation mentioned in *ayurvedic* literature in the treatment of *vyanga*are included.

Keywords: ayurvedic drugs, external application, vyanga (melasma)

APO-08

Traditional Methods of Preparation of Anutaila and Scientific Review of Medicinal Biomolecules

Dr Suwarna Chaudhary

Assistant Professor, Department of Shalakyatantra

SMBT Ayurved College, Dhamangaon, Nashik

Abstract:

Shalakyatantra is a branch of Ayurveda which mainly describes Head & Neck normality & abnormalities. According to Vagbhatacharya Nose (Nasa) is the entry gate for the head.If we wish to treat the diseases related to head as well as neck up to shoulder region "Nasya" is the best treatment. And for Nasya vidhiAnutaila is one of the best remedies explained by commentators for different purposes. As Ayurveda is nourished & flourished by different views of Aacharyas& commentators, we find different methods of preparation of this Anutaila. In this paper review of all these methods taken into consideration. Though diversity in one drug preparation i.e. Anutaila but at the end gives the same medicinal roles of biomolecules indicated in GC-MS profile which were screened for their various Medicinal roles using Dr Duke's Phytochemical & ethno botanical data & other data. At and of review we can conclude that Anutaila does have a scientific efficacy towards claimed role as medicine in Ayurveda and further research is required for better understanding of Medicinal roles of Anutaila.

Keywords: Ayurvedic medicine, GC-MS profile.

APO-09

A Scientific Review on the Use of A Traditional Medicine – Guggulu (Commiphera Mukul) In The Management Of Hypothyroidism."

Dr.Varsharani Santosh Niphade. HOD. Associate Professor, Department of Kayachikitsa. SMBT Ayurved College and Hospital Nandi hills, Dhamangoan, Nashik, Maharashtra India.
Email- varsharaniniphade@gmail.com

Absract

Hypothyroidism is a major endocrinal disorder & it affect up to 5% of general population. Prevalence of Hypothyroidism in India is 11%. Hypothyroidism is defined as, 'When Serum thyroxin T3 & T4 hormone concentration below the reference range & Thyroid stimulating Hormone TSH above the reference range' it is called as disease condition. Thyroid hormone replacement with levothyroxine is standard available treatment option. In spite of a good treatment option it is observed that sustainable proportion of patients treated with levothyroxine have persistent complaints in presence of reaching biochemical therapy targets. Hypothyroidism is not exactly elaborated in Ayurveda texts, but scattered description of disease is present at many places. When we search for the treatment option in Ayurveda literature we found a drug – Guggulu (CommipheraMukul) which can be used in Hypothyroidism. A Gum Resin of Guggulu has some steroids like- Guggulusteron E, Guggulusteron Z, Guggulusterol 1 to 6. These steroids has anti-inflammatory, antilipidemic and thyroid stimulating activity. Here a genuine efforts are made to do a scientific review of use of a Guggulu and its different formulations like TrifalaGuggulu, KanchanarGuggulu, NavakaGuggulu, SwayambhuGuggulu, PanchatiktaGrutGuggulu etc. in the management of Hypothyroidism. Guggulu and its different formulations can be used as an Add on Therapy for levothyroxine, to help patients to get symptomatic relief more than biochemical achievements and can be used to reduce the dose and duration of a treatment of levothyroxine.

Keywords: Guggulu, Hypothyroidism, biochemical therapy.

APO-10

Assessment of Efficacy of Aloevera gel Amongst Patient with Gingivitis and Apthous Ulcer.

Ashwini Santosh Karwa

Dr. Manish Jain

Abstract

Keywords: Aloevera gel is anti- inflammatory, anti – microbial, fungicide, antioxidant, etc.

To assess the efficacy of aloevera gel among patients with Gingivitis and ApthousUlcer.To know how efficiently aloevera gel can reduce gingivitis.To know how efficiently aloevera gel reduces the burning sensation in patients with Apthous Ulcer.To detect whether aloevera gel reduces the intensity and duration of disease.

MATERIAL: Aloevera Gel.

STUDY DESIGN: Experimental – Interventional study.

STUDY SETUP: SMBT IDSR, Dhamangaon.

SAMPLING METHOD: Simple Random Sampling.

SAMPLING SIZE: 30 samples with Gingivitis

30 samples with ApthousUlcer

APO-11

Development and Validation for the Simultaneous Determination of Aspirin, Atorvastatin Calcium and Clopidogrel Bisulphate by Reversed-Phase HPLC Method in its Bulk and Pharmaceutical Capsule Dosage Form

Yogita B. Thombare*[,1], Pritam N. Dube [2], Tushar N. Lokhande[1]

[1]MGV's Pharmacy College, Pachavati, Nashik-422003, Maharashtra, India.

[2]Matoshri College of Pharmacy, Eklahare, Nashik-422105, Maharashtra, India

*Corresponding Author: yogitathombare11@gmail.com

Abstract

Literature survey reveals many reported methods for the analysis of ASP by high-performance liquid chromatography (HPLC) and high performance thin-layer chromatography (HPTLC). Chromatographic methods have been reported for determination of ATO, in combination with other drugs, in bulk and pharmaceutical dosage forms. Estimation of CLO by HPLC and HPTLC, either individually or in combination with other drugs is reported.

Introduction

A present investigation showed the simple, accurate, rapid and precise isocratic reversed-phase high-performance liquid chromatographic method which was developed and validated for simultaneous determination of aspirin, atorvastatin calcium and clopidogrel bisulphate in capsules.

Materials and Methods

Pharmaceutical grade of ASP, ATO and CLO were kindly supplied as gift samples by Torrent Pharmaceuticals, Gujarat, India, certified to contain >99% (w/w) on dried basis. Commercially available Ecosprin Gold-10 (Tristar Formulation Pvt. Ltd., Pondicherry, India) and Deplatt-CV (Surien Pharmaceuticals, Pondicherry, India) capsules claimed to contain 75 mg aspirin; 10 mg atorvastatin calcium and 75 mg clopidogrel bisulphate have been utilized in the present work. All chemicals and reagents used were of HPLC grade and were purchased from Merck Chemicals, India.

The chromatographic separation was carried out on an Inertsil ODS-3 analytical column (4.6 ×150mm; 5 µm) with a mixture of Acetonitrile (35:65 v/v): Phosphate buffer pH 4.8 adjusted

with acetic acid (50:50, v/v) as mobile phase; at a flow rate of 1.1 ml/min. UV detection was performed at 240 nm..

Results and Discussion

The retention times were 1.92, 6.8 and 18.6 min. for aspirin, atorvastatin calcium and clopidogrel bisulphate, respectively. Calibration plots were linear (r2 >0.998) over the concentration range 5-30 µg/ml for atorvastatin calcium and 30-105 µg/ml for aspirin and clopidogrel bisulphate. The method was validated for accuracy, precision, specificity, linearity, and sensitivity. The projected method was successfully used for quantitative analysis of capsules. No interference from any component of pharmaceutical dosage form was observed. Validation studies discovered that method is specific, rapid, reliable, and reproducible. The high recovery and low relative standard deviation endorse the suitability of the method for repetitive determination of aspirin, atorvastatin calcium and clopidogrel bisulphate in bulk drug and capsule dosage form.

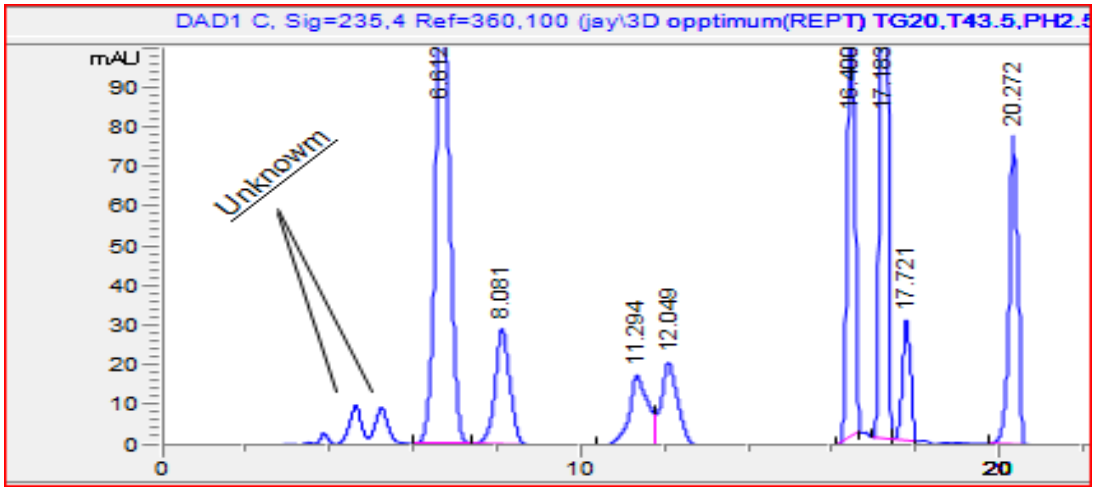

Fig: Representative chromatogram obtained for marketic formulations.

Acknowledgement

The author(s) are thankful to management of MGVs Pharmacy College, Panchavati (Nashik; India) for providing facilities.

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Student Paper Presentation

ICTM2023

SPA-01 To SPA-09

SP-01 To SP-19

SPA-01

Formulation and Evaluation of Herbal shampoo based on natural sources.

Ms. Shweta Bhole[1]& Ms. Bhavana Tambe[2].

Student [1]SMBT Institute of Diploma Pharmacy, Dhamangaon, Nashik

Assit .Prof.[1]SMBT Institute of Diploma Pharmacy, Dhamangaon, Nashik

Abstract:

The main objective of this study is to formulate and evaluate an herbal shampoo which is 100% herbal and does not show any side effects. The "Herbal Shampoo" which is chemicals free polyherbal, shows no side effects and gives smooth, shiny dirt-free hairs on subsequent uses.Shampoo is a hair care product used for the removal of oils, dirt, skin particles, dandruff, environmental pollutants and other contaminant particles that gradually build up in hair. It is a cosmetic preparation; Its primary function is of cleansing the hair of accumulated sebum, scalp debris and residues of hair-grooming preparations. This formulation contains all herbal ingredients like "Acacia concinna", "Sapindusmukorossi", "Hibiscus sabduriffa", "Trigonella-foenium-graecum", "Aloe barbedensismiller" Along with castor oil, onion oil, and lavender oil by saponification method. It gives foams naturally soapnuts not by any other chemicals which can damage the hairs as well as scalps. This formulation passes all the evaluation tests Physical appearance, Determination of pH, dirt dispersion, Foaming ability and Foaming stability, cleaning action, wetting time.

Keywords: Herbal drugs, Herbal drug extract, Herbal Shampoo, Evaluation

SPA-02

‘‘Formulation and Evaluation of Herbal Anti-Dandruff Shampoo FromBhringraj leaf ’’

Mr.Nikhil Adole, Ms Prajakta Patil *

Student `SMBT Institute of Diploma Pharmacy''

Assist professor ``SMBT Institute of Diploma Pharmacy''

nikhiladole@gmail.com

Abstract:

The Study aimed is to formulate a pure herbal shampoo and evaluate and compare its physicochemical properties with marketed synthetic and herbal shampoo. The shampoo was prepared by taking the extract of Ecliptaprostrata, Phyllanthus, Aeglemarmelos, Acacia coninna, Sapindusmukorossi, Withaniasomnifera, Aloe barbadensis miller. Evaluation of oraganoleptic properties, physiochemical and performance test were carried out. Small amount of methyl paraben was added as preservatives & PH was adjusted using citric acid. Several tests like visual inspection, PH, Wetting time, % solid content, foam volume, surface tension, detergency. Dirt dispersion were performed to determine the physiochemical properties. The indicated formulated herbal shampoo is having excellent detergency. All the ingredients used to formulate shampoo are safer and the physicochemical evaluation showed ideal.

Keywords - Herbal Shampoo, Natural & Healthy, Anti-Dandruff, Aloe-vera, Bhringraj, Ashwagandha, Soap nut, Shikakai, Amla, Bilva, Evaluation of shampoo.

SPA-03

Formulation and Evaluation of Herbal Wound Healing Ointment containing extract of Psidium*guajava.*

Ms. Vaishnavi .S. Katkale *& Mr. Kundan .J. Tiwari
Student ``SMBT Institute of Diploma pharmacy''
Assist professor ``SMBT Institute of Diploma Pharmacy''
Email:-katkalevaishnavi@gmail.com

Abstract

Psidiumguajava popularly known as guava, it is a small tree belonging to family Myrtaceae. Guava trees grown in tropical and subtropical climate. Psidiumguajava leaves has many nutritional and medicinal properties. From the time immemorial guava leaves have been used extensively on wound in the history of mankind. Guava leaves are rich in wide range of polyphenolic compounds (phenols, flavonoids and tannins) which exhibit faster healing of wounds. The guava leaves were collected from local area of Nashik region.

Keywords: medicinal properties, Psidiumguajava, polyphenolic compounds, wound healing.

MATERIAL AND METHODS

Collection and drying- Leaves of Psidiumguajava was collected from local area of Nashik region. Cleaned and dried at room temperature in shade away from direct sunlight. The dried leaves were powdered in grinder and sieved through 60-120 mesh to remove fine And large particles. Preparation of Extract The Psidiumguajava leaves were collected and washed thoroughly with distilled water and dried under shade at room temperature for two to three days and powdered it by the use of grinder and were sieved to get the powder and was extracted with ethanol as solvent and filtered then obtained extract.

Formulation of ointment

The ointment was formulated.

RESULT- Formulation and Evaluation of herbal ointment as per guidelines of standard book.

SPA-04

Formulation and Evaluation of Antifungal Polyherbal Dusting Powder

*Ms Gayatri S. Kadam[1], MrKiran A. Suryavanshi[2]

Student[1] at SMBT Institute of Diploma Pharmacy, Dhamangaon, Nashik.

Asst Prof[2] at SMBT Institute of Diploma Pharmacy, Dhamangaon, Nashik

Abstract:

Skin diseases are numerous and a frequently occurring health problem affecting all ages from the neonates to the elderly and cause harm in number of ways. These skin diseases aren't just simple they cause harm to the skin in numerous ways and in many cases these skin diseases are the symptoms for many complicated underlying health issues i.e. Tumor, Herpes and Cellulitis.Skin illnesses have been of significant concern as of late because of their relationship with the Human immunodeficiency virus and Acquired immunity deficiency syndrome (HIV/AIDS).Fungal infections due to the hot climate and overcoming households are common in this area as well as burn accidents due to the case of wood as the major fuel for cooking. It is known that the lay people in this area depend on medicinal plants for their primary health care .Natural ingredients have been used for plant extracts, used in skin care , include antioxidant and antimicrobial activities and Tyrosinase inhibition effect.The main objective of the work was to formulate and evaluate antifungal polyherbal dusting powder. The dusting powder was prepared by using a various herbal ingredients which posses the antioxidant and antimicrobial properties. Tulsi, Neem, Turmeric, Kachnar are the herbal ingredients were use in this work to formulate antifungal polyherbal dusting powder which can statisfy all the required properties to prevent skin disease. The prepared dusting powder was then evaluated for various parameters such as physical characteristics (color, odor, grittiness, appearance) solubility, pH. Micrometric properties such as particle size, surface area, density, angle of responseDepending upon the results, We may that the formulation of polyherbal dusting powder is effective in antimicrobial activity and should be explored in the treatment of various topical skin diseases.

Keywords- HIV/AIDS, Antioxidant, Antimicrobial, Tyrosinase inhibition.

SPA-05

Formulation and Evaluation of Herbal Antidiabetic Suspension

Shruti Gupte* and Kundan Tiwari

Student, SMBT Institute of D. Pharmacy, Dhamangaon, Nashik, Maharashtra, India.

Email Id : gupteshruti08@gmail.com

Abstract

WHO According, diabetes mellitus are disease becoming the epidemic in the world. Diabetes mellitus is a metabolic disorders in which high blood sugar level occur prolonged period. . India rank second most affected in the world. In India, about 70% of rural population depends on the traditional Ayurvedic system of medicine Plant Because Ayurvedic Plant are easily available. The present studies of research has been undertaken with development and evaluation, crystal growth, PH, Accelerated stability, viscosity and the Herbal Suspension. Among three formulation F3 formulation are stable. . Herbal medicine is the oldest form of healthcareTridaxprocumbens belonging to family Asteraceae. The plant used traditionally as Antioxidant, anthelmintic cardiovascular, anti microbial, hepato-protective properties, malaria, high blood pressure, and anti inflammatory used traditionally it also having Anti-diabetes activity.

Keywords: Traditional plant, TridaxprocumbensExtract, Anti-diabetes suspension

SPA-06

‘‘Formulation & Evaluation of Natural Lip Balm”

Mr. Devdhar Bhalerao, Mr.Nikhil Adole, Mr. KiranSuryavanshi*

SMBT institute of Diploma Pharmacy DhamangaonNashik

E-mail Id:-nikhiladole@gmail.com

E-mail Id:- piyushxovibez09@gmail.com

Abstract:

The demands for natural products increase especially in the cosmetics industries. The rising global demand for natural products whose production is harmless to the human body and environment has developed the novel method of formulation of cosmetic. The image of environment friendly formulation is one of the strongest attractions of the organic or natural cosmetic. Lip balm is one of the widely used cosmetic product whose purpose is to give a colour to the lips as well as prevent lip dryness and acts as lip treatment. The lip balm has been prepared by using Clarified butter (Ghee), Petroleum jelly (Vaseline), Vitamin E and other natural dyes &pigment. The Evaluation for all parameters including Melting point, organoleptic properties, Test of Spread ability, Measurement of pH, Stability studies has Examined. The Benefits of Natural lip balms provide great nourishment to your lips as they are rich in antioxidants and vitamins that do not just help in keeping the lips completely moisturized but maintain the softness.

Keywords: Organic, Cosmetic, Natural dyes, Clarified Butter, Petroleum Jelly, Lip Balm.

SPA-07

"Formulation and Evalution Herabal Lotion"

Ms.Kalyani Dubhashe, Ms.BhavanaTambe
SMBT Institute of Diploma Pharmacy
Email: Kalyanigd2003@gmail.com

Abstract:

The herbal preparation is researched by many more researcher and from that new herbs obtained new herbal formulation. The "Herbal Formulation" had no adverse effect. The formulation of "Herbal Lotion" prepared from "Aloe barbedensis miller"& "Polyfloral Honey" .The Aloevera gel and honey powder is useful for nurshingskin, and it is also act as a Anti-inflammtory, Antiseptic and Antioxidant agent. The prepared lotion is evaluated Irritancy test and pH measurement ,Washabilitytest, Viscosity test, Preference test, Homogenesity test frequently. As moisturization is present in Aloevera gel it used to prevent dryness of skin during winter and during summer used to prevent acne and sunburn. "The Herbal Lotion" passes all the evaluation test, so it is safe to ues for skin and body.

Keywords: Herbal Drugs, Aloevera, Honey powder, Herbal formulation, Evaluation.

SPA-08

Formulation and Evaluation of Butterfly Pea FlowerAntiageing Face Wash Gel

Ms. Pooja R. Zankar, Maya Y. Gaikwad*

SMBT Institute of Diploma Pharmacy Dhamangaon, Nashik

Mail ID: poojazankar768@gmail.com

Abstract:

Clitoriaternatea is commonly called as Asian pigeonwings, bluebellvine, blue pea, butterfly pea, cordofan pea or Darwin pea belonging to family Fabaceae. It is herbal plant having lots of medicinal uses. The phytochemical analysis of *Clitoriaternatea* was found to be presence of alkaloids, tannins, glycosides, resins, steroids, saponins, phenols and flavonoids. It is rich in antioxidant and also having several benefits like increasing weight loss, control blood sugar level and improvement in hair and skin health. People utilize a range of skin care preparationsto enhance the effectanddeveloping a charming personality. The formulation made up from antimicrobial agent (*Clitoriaternatea*extract) and additives like antioxidants, gelling agent, preservatives, humectants and foaming agents. The face wash gel having advantage over synthetic cosmetics like fits in our budget, no side effects and not tested on animals.

Keywords: Clitoriaternatea, antimicrobial, blood sugar control, antioxidant.

SPA-09

Formulation and Evaluation of Acetaminophen Mouth Dissolving Tablets

*Ms Janhavi P.Patil[1], Mr Kiran A. Suryavanshi[2]

Student[1] at SMBT Institute of Diploma Pharmacy, Dhamangaon, Nashik.

Asst Prof[2] at SMBT Institute of Diploma Pharmacy, Dhamangaon, Nashik.

Abstract:

Being most preferable and convenient route, many tablets can be administered orally. Upon administration, it is really important for tablets to disintegrate immediately within few seconds and dissolve in gastric fluid for desired therapeutic effect. It also help to increase patient compliance. In this work, comparative study has been done with tablets made with natural superdisintegrants and marketed MDT. Formulation containing mucilage of Hibiscus rosa-sinesis, guar gum with the other required ingredients were used to formulate tablets. Formulated tablets were evaluated for its hardness, friability, disintegration and dissolution properties. The expectable results obtained and represented here in this article.

Keywords: Superdisintegrants, orally, therapeutic effect

SP-01

Cytotoxic and Phytochemical screening of *Piper betle*

Siddhi M. Chandak[1*], Dr. Yogesh V. Ushir[1], Kundan J. Tiwari[2]

[1]SMBT College of Pharmacy, Nandi-Hills, Dhamangaon, Nashik 422403

[2]SMBT Institute of D. Pharmacy, Nandi-Hills, Dhamangaon, Nashik 422401

Abstract:

In the current study, the phytochemicals present are examined, and the ethanolic extract of Piper betle is tested for cytotoxicity using an in-vivo Brine Shrimp Lethality Assay (BSLA), which determines if it can kill laboratory-cultivated larvae (nauplii). Ten nauplii were added to every concentration of the extract, which was made in various concentrations. The number of motile nauplii was counted after 24 hours to determine the efficiency of the plant extract. Thus, the results support the uses of these plant in medicines.

Keywords: Brine shrimp lethality assay, Cytotoxicity, *Piper betle.*

SP-02

Formulation, Development and Evaluation of Nutraceutical Tablets of Indian Propolis

S. K. Gadge H.S,Kapare, P.D. Garad, , H.K. Gaikwad

Dr. D.Y. Patil Institute of Pharmaceutical Sciences and Research Pimpri, Pune, India.

Presenting author: Mr. S. K. Gadge

E-mail address: gadge127@gmail.com.

Abstract:

Propolis (bee glue) is a resinous and sticky substance which is collected by bees to construct and prevent their hives from external invaders. More than 300 chemicals constituents are yet reported in propolis samples worldwide, including polyphenols, phenolic aldehydes, sesquiterpenes, quinine, coumarins, amino acids, steroids, and inorganic compounds etc. Propolis has a thorough database on its biological and nutraceutical activities including antibacterial, antifungal, antiviral, anticancer activities etc. Several extraction procedures were used to get physiologically active components of propolis. The study attempts extraction, formulation development and evaluation of Indian propolis tablets for its nutraceutical potential. The tablets were made using a non-aqueous wet granulation process with medicinal Indian propolis and other excipients for the formulation of nutraceutical tablets. Developed formulation was evaluated for various granules, tablets and nutraceutical parameters for finished dosage form. The tablet dosage form was formulated and evaluated. The results showed flavonoids contents 23%. Granules and tablets parameters were found to be in acceptable limits. The results reveals developed formulation studies may be extended further for clinical studies for possible nutraceutical applications.

Keywords: Indian propolis, Nutraceutical, Dosage form

SP-03

Formulation and Evaluation of Polyherbalantiacne Soap

Prathamesh D. Bagul*[1], Yogesh V. Ushir[1],Kundan J. Tiwari[2]

[1] SMBT College of Pharmacy, Nandi-Hills Dhamangaon, Nashik 422403

[2]SMBT College of D. Pharmacy, Nandi-Hills Dhamangaon, Nashik 422403

Email Id: prathameshbagul2002@gmail.com

Abstract:

A polyherbalantiacne soap was formulated using the extracts of Azadirachtaindica (neem oil),Myristica (nutmeg), rhizomes of Curcuma longa (curcumin), Ocimumtenuiflorum (tulsi), cinnamon, sandal wood, rose oil, lemon oil,sapindus etc. Ayurvedic cosmetics are also known as the herbal cosmetics the natural content in the herbs does not have any side effect on the human body. most herbal supplement is based on several botanical ingredients with long histories of traditional or folk medicine usage. Azadirachtaindica,Ocimumtenuiflorum, curcumin, exhibits various properties such as antioxidant, antifungal, antibacterial, etc. nutmeg have the anti -aging, cleaning purpose, etc., sapindus it uses as a face cleanser, it providesmoisturizing effect to the face skin.Cinnamon decrease signs of aging, it lightens the skin and help to treat hyperpigmentation & acne. The formulated polyherbal anti-acne soap was evaluated by various organoleptic parameters and physical parameters such as pH, foam height, foam retention, total fatty material, total percentage free alkali, alcohol- insoluble matter, moisture content, skin irritation.Reetha is use as a natural foaming agent. rose oil, lemon oil & sandal wood powder is use as a flavouring agent. The crude drug which used in the soap preparation is given many properties medicine or cosmetics. The plant used in soap preparation is able to soft the skin epidermis enhances greater penetration remove acne.

Keyword: polyherbal soap, herbal cosmetics, hyperpigmentation.

SP-04

Formulation and Evaluation of Medicated Chewing Gum for the Treatment of Primary Dysmenorrhea

Yogesh Suryavanshi, Mayur S. Mahajan, K. R. Bobe, Prashant Suryawanshi

Email ID: mayurmahajan9719@gmail.com

Abstract

Dysmenorrhea is a Greek term for "painful monthly bleeding or painful menstrual cycle" Dysmenorrhea is a common complaint or condition among adolescent and women during their reproductive age. It associated with significant emotional, psychological, physical, and functional health impacts. the pain is described as a sharp, intermittent, and spasmodic pain and can be classified as mild (does not affect daily activities), moderate (slightly interferes with daily activities) or severe (prevents daily activities). Here to overcome the pain of dysmenorrhea medicated chewing gum is developed. It is a novel drug delivery system containing masticatory gum base and API's. It is solid dosage form, can be used for both local and systemic effect through oral cavity and it consist from water soluble and water insoluble parts. Piroxicam drug is used which works by preventing the production of prostaglandins which involve in the mediation of pain, stiffness, tenderness and swelling in primary dysmenorrhea, after the preparation of medicated chewing gum it can be evaluated by precompression and post compression studies.

Keywords- Dosage form, Chewing gum, synthetics gum.

SP-05

Formulation development and characterization of PLGA-Luliconazole Nanoparticles loaded Gel System for Topical Fungal Treatment

Prajakta Sanjay Thorat[1], Dr. Santosh S. Chhajed[2*]

[1]Student, MET's Institute of Pharmacy, AdgaonNashik, India

[2]Associate Professor, MET's Institute of Pharmacy, AdgaonNashik, India

E-mail address: prajakta.thorat@gmail.com

Abstract

Superficial fungal infection in immunocompromised patients can lead to many disorders and complications. Currently, new topical treatment options are critically needed to treat these fungal infections. Luliconazole is a topical antifungal medicine used for fungal infection treatment. Luliconazole has lower aqueous solubility that limits dermal bioavailability and acts as a barrier to topical delivery. The solubility of the drug in the lipid phase of stratum corneum also acts as a rate-limiting step for permeation. Thegoal of this research is to develop nanoparticle dispersion using the single solvent evaporation method and then incorporate it into nanogel formulation using a gelling agent. The formulated Nanogel shows excellent antifungal activity as compared to marketed formulation of luliconazole. As a gelling agent, Carbopol 940 and HPMC K15M is used. Because luliconazole belongs to Class II of the Biopharmaceutical Classification System, which includes a class with low solubility and high permeability, pharmaceutical researchers are concerned about its increased solubility. Because of its solubility and side effects, luliconazole does not absorb well when taken orally. Finally, it concludes that the prepared nanogel shows excellent Antifungal activity than the marketed luliconazole formulation. Thus, the present study was attempted to develop and optimize LUL-loaded nanoemulgel for improved efficacy against fungal infection by enhancing the solubility and simultaneously the permeability across the skin barrier.

Keywords- Antifungal activity, solubility, gelling agent.

SP-06

Formulation and Evaluation of Topical Delivery System for the Treatment of Athlete's Foot.

Ms.Shraddha Shankarpelli, Ms. ShipaliGowardipe, Ms. PrachiTakbhate

Dr. V.V. Potnis, Principal, JSPM's Jaywantraosawantcollege of pharmacy and research, Pune.

Dr. SuchitaDhamne, Professor, JSPM's Jaywantraosawant College of Pharmacy and research, Pune.

Abstract

Athlete's foot, one of the most common skin disorders. It affects 10 - 15% of the world population. higher in adults (17%) than in children (4%),The peak age incidence is between 16 and 45 years.If not treated -leads to secondary bacterial infection- spread infection to other parts of the body nails, groin, face, bearded areas, and hands.So, it is necessary to treat Athlete's foot infection. The formulation of antifungal drugs in organogels dosage form have beneficial effects. In the present work Pluronic lecithin organogel of terbinafine hydrochloride topical formulation is prepared, Becauseit's oral bioavailability is about 40% because of first pass metabolism. So terbinafine is mostly administered by topical route.

Keywords-Antifungal drug, Dosage form.

SP-07

Formulation and Evaluation of Antioxidant Face pack using Gallic Acid as a Active Phytoconstituent.

Ms.Sanika Pawar

Abstract:

Face Pack is a smooth his powder to use on the face. These formulations are applied to the face in liquid or paste .face pack Nourishes the skin and usually remove dead skin cells.The main purpose of antioxidant face packs are toprotect the skin's surface from oxidative damage caused by free radicals and environmental aggressors like UV and pollution.skin problems are usually caused by impurities in the blood. Herbal face packs help promote blood circulation. , helps to rejuvenate muscles, maintain skin elasticity and remove dirt from skin pores. The advantages of herbal antioxidant face pack is their non-toxic nature, reduced allergic reactions and the proven usefulness of many ingredients. And also this face pack is used to prevent sagging of skin.

Keyword- face pack, Antioxidant activity, Gallic acid.

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SP-08

Formulation and Evaluation of Polyherbal Facial Scrub

Mrs. Aarti Landge, Mrs. Aishwarya Deshmukh,
Email Id:deshmukhaishwarya818@gmail.com

Abstract

Cosmetics have been part of routine body care among great number of people.The main objective of the present study was to prepare polyherbal facial scrub.Herbalcosmeceuticals contains plant parts possessing Antioxidant,Anti-aging,removal of dead skin properties.According to above points,we conclude to prepare & evaluate Polyherbalfacial scrub using Soyabean(*Glycine max*)seeds as a main ingredient showing skin lighteningeffect & as an antioxidant.Also,fenugreek seeds(*Trigonellafoenumgraecum L*)as a scrubbing agent to remove blackheads,Aloevera(*Aloe barbadensis*)as a moisturiser,Neem(*Azardicachtaindica*)to remove dead skin,Tea dust(*Camellia sinensis*)giving more even skin tone.This herbalingredients are used along with SLS,methyl paraben & rose water as a solvent.Preparedscrub was evaluated for variousparameterslikecolour,odour,consistency,pH,viscosity,spreadability,washability,irritability.

Keywords: Polyherbal Facial scrub, Soyabeanseeds, Anti-aging.

SP-09

Formulation and Evaluation of Medicated Chewing Gum for the Treatment of Primary Dysmenorrhea

Mayur S. Mahajan Yogesh Suryavanshi, K. R. Bobe, Prashant Suryawanshi
E-mail address: mayurmahajan9719@gmail.com

Abstract

Dysmenorrhea is a Greek term for "painful monthly bleeding or painful menstrual cycle" Dysmenorrhea is a common complaint or condition among adolescent and women during their reproductive age. It associated with significant emotional, psychological, physical, and functional health impacts. the pain is described as a sharp, intermittent, and spasmodic pain and can be classified as mild (does not affect daily activities), moderate (slightly interferes with daily activities) or severe (prevents daily activities). Here to overcome the pain of dysmenorrhea medicated chewing gum is developed. It is a novel drug delivery system containing masticatory gum base and API's. It is solid dosage form, can be used for both local and systemic effect through oral cavity and it consist from water soluble and water insoluble parts. Piroxicam drug is used which works by preventing the production of prostaglandins which involve in the mediation of pain, stiffness, tenderness and swelling in primary dysmenorrhea, after the preparation of medicated chewing gum it can be evaluated by precompression and post compression studies.

Keywords- Dysmenorrhea, Chewing gum, Dosage form.

SP-10

Formulation and Evaluation of Herbal Chocolate

1 Laiba NisarAhmeh Chaudhary, 1 NishikaKailashElinje, 2 YogitaBhupendraPatil, 2 AshwiniRasa, l 2 Rajashri Kulkarni

[1] Student of R.G.Sapkal Institute of Pharmacy, Nashik, India.

[2,] Lecturer of R.G.Sapkal Institute of Pharmacy, Nashik, India.

E-mail address: patilyb87@gmail.com

Abstract

Giloy is the ayurvedic formulation. Commonly term as guduchisatva, this magical powder hails immense health benefits towards pitta, aggravating disorders like indigestion , constipation, burning sesation of hands and feet , fever , gout , fatigue , jaundice, diabetes, covidetc also work as immunity booster. Our present study in this review encompasses the formulation and evaluation of Herbal Chocolate made by Giloy using HPTLC and taste masking methods

SP-11

Traditional Therapeutic Plant with Versatile Pharmacological Activities

Harshal S. Desale

S.M.B.T College of Pharmacy, Nashik (Maharashtra) India.

Email address – harshaldesale2001@gmail.com

Abstract

The cadamba tree (*Neolamarckiacadamba* (Roxb.) Bosser) is one of houseplants with religious significance. This is aAyurvedic remedy used for medical purposes in his countries such as China, India and Egypt. They are known for their herbal botanical medicinal use in hopeless disorders. Its flowers, roots, bark, leaves, and stems are used therapeutically against a variety of ailments such as diabetes, diarrhea, fever, inflammation, hemophilia, cough, vomiting, wounds, ulcers, weakness, and snake bites.

Keywords: Neolamarckiacadamba,Anthocephaluscadamba, Pharmacological activities, Planting technique.

SP-12

Development & Evaluation of Polyherbal Mosquito Repellent Cream by Using Natural Lutein Extract & Essential Oils

Komal Sagar

Abstract

Mosquito vector disease is a major problem of human and animal health. The amount of dengue, zika, chikungunya, yellow fever, and malaria is gradually increased. Natural insect repellents have active ingredients from the oils of various plants and considered perfectly safe to use.The proposed work was aimed to developed polyherbal mosquito repellent cream by extracting active constituent from their biological sources of plants having mosquito repellent activity such as Marigold, Lemongrass and Lavender etc.

Keyword: Marigold, Lutein, Lemongrass, Lavender, Polyherbal cream.

SP-13

Design Formulation and Evaluation of a Transdermal Gel Containing Ethosomes of Millingtoniahortensis Leaf Extract

Miss. Ruksar Shikalgar*, Miss. Mayuri Yadav* (M Pharmacy, Quality Assurance)

Mrs. Mukta Abhyankar[1], Dr. Mrs. Minal Ghante[2]

[1]Asst.Prof., Smt. KashibaiNavale College of Pharmacy, Kondhwa (Bk), Pune.

[2]Assoc.Prof., Smt. KashibaiNavale College of Pharmacy, Kondhwa (Bk), Pune.

Abstract

Aim of our study is to design, formulate and evaluate transdermal gel containing ethosomes of *Millingtoniahortensis* leaf extract.*Millingtoniahortensis L.* (Indian cork tree) belongs to the family of Bignoniaceae. The leaves are reported to be used for antibacterial, antioxidant, antipyretic, anthelmintic, antifungal, sinusitis, and Cholagogue activity. The *M. hortensis* extract was first screened for phytochemical analysis, total phenolic, flavonoid content & FTIR examination. Delivering plant extract at high loading with intact and efficient skin permeation always remains challenging. The stable gel formulation containing ethosomes loaded with *M. hortensis L.* extract was prepared and evaluated for topical drug delivery. Ethosomes were prepared using cold method. The prepared ethosomes were evaluated by Entrapment Efficiency (EE), Zeta Potential (ZP), Particle Size, and In-vitro drug release. The ethosomal gel was prepared by the Dispersion method. The prepared ethosomal gel was evaluated by performing pH measurement, drug content, and In-vitro drug release.

Keywords- Medicinal plant, phytochemical analysis, antimicrobial assay.

SP-14

Formulations and evaluation of Antioxidant peel-off gel mask usingGallic acid as a active phytoconstituent.

Ms. Janvi Patel

Abstract

The peel-off gel mask is one of the unique characteristic forms of mask that will form an elastic film layer. It can be removed without rinsing after drying and leaving no residue. The manufacture of masks using natural material is better than synthetic materials. One of the natural materials that can be used as a natural ingredient mask as gallic acid. Gallic acid contains antioxidants beneficial as the antidote to free radicals that damage the skin.

Keyword: Gallic acid, Peel-off gel mask, Antioxidants

SP-15

Enzymatic Hydrolysis of Gluten using Proteolytic Enzyme for the Possible Treatment of Celiac Disease

Mr. Amol V. Tonde1, and Mr. Santosh. S. Chhajed2 1MET's Institute of Pharmacy, Nashik, India. 2, Assistant Professor, MET's Institute of Pharmacy, Nashik, India.

E-mail address: amoltonde@gmail.com

Abstract

Celiac Disease is a common food-induced hereditary and life-long inflammatory disease. In Celiac Disease the inflammation is triggered by ingestion of wheat gluten and/or similar proteins found in other cereals such as barley (hordeins) and rye (secalins). The diagnosis of Celiac Disease is difficult as it affects people in different ways. The symptoms are different in different people as it shows effects at variable times. Currently there is no approved drug therapy for Celiac Disease and strict gluten free diet is the only advice physician offers to the patient. There are various approaches which are being studied by the scientists to treat the patients with Celiac Disease. Peptidases that effectively cleave these difficult-to-hydrolyze peptides can be used as an enzyme therapy for patients with Celiac Disease. In the present work, enzyme based hydrolysis of inflammatory protein gluten using proteolytic enzymes is proposed.

SP-16

Formulation, Development and Evaluation of Herbal Face Pack for Different Skin Problems

*Ms Tejaswini K. Dalvi[1], Mr Kiran A. Suryavanshi[2]

Student[1] at SMBT College of Pharmacy, Dhamangaon, Nashik.

Asst Prof[2] at SMBT Institute of Diploma Pharmacy, Dhamangaon, Nashik

Abstract:

The objective of present work is to formulate and evaluate herbal face pack in order to enhance the aesthetic appeal of skin. Five different batches (formulations) with varying concentrations were prepared and evaluated for its physicochemical, oraganoleptic, stability, irritancy properties. Required ingredients for formulations like orange peel, masoordaal, aloe-verapowder, neem, and turmeric & rice flour were collected from local market, aloe was collected and dried under sun for 3 days. Kachnar flowers and petals were collected within campus of SMBT. After drying, all the ingredients were mixed in geometrical proportion.

Herbs used in this face pack are rich in minerals and vitamins, which are essential for maintaining health, tone, texture of skin, and reduce pigmentation. Use of herbal or natural drugs have been regarded as safe as compare to synthetics which contains many toxic chemicals hazardous for skin (if use for longer period).

In this study, it is concluded that all the batches have shown good results however, optimization is still necessary to find suitability of this face pack for human use.

Keywords: Aesthetic appeal, herbal Face pack, synthetics

SP-17

Formulate and Evaluate Herbal Piper Betle Ointment

Siddhi Deshmukh, Snehallingayat

SMBT College of Pharmacy

Abstract:

Piper betle is a perennial , dioecious climber that belongs to dicot family Piperaceae with glossy heart shaped leaves. The betel plant is indigenous to southeast Asia. Betel leaves may be used for fungal infections which, contain a bioactive compound hydroxychavicol (polyphenol) and it may inhibit the growth of fungus. The present research has been undertaken with the aim to explore more new compounds of plant origin for controlling dermatophyticinfections.The betel leaves show antibacterial and antifungal properties also Antioxidant and ischemic.

Keywords: Piper Betle, hydroxychavicol, Dermatophytic, antibacterial, antifungal, antioxidant.

SP-18

An in vitro comparative Anti-Bacterial efficacy of Murraya Koeingii (Curry leaves), Camellia Sinensis (Green tea) and 2% Chlorhexidine against Enterococcus Faecalis

Tanuja Dinesh Pawar

SMBT Institute of Dental sciences and research centre, Nashik

Abstract:

Human needs in terms of shelter, clothing, food, flavors, fragrances and even medicines have been provided by plants. Traditional medicine systems like Ayurveda, Unani, and Chinese are based upon plants. Even some important drugs used presently have been derived from plants.The father of Medicine, proclaimed "letfood be thy medicine and medicine be thy food". Traditional system of medicine in Eastern Asia mentions of important uses of this plant i.e., curry leaf tree (Murryakoenigii Family: Rutuceae). The leaves of Murrayakoenigii contain proteins, carbohydrate, Fiber, minerals, carotene, nicotinic acid, Vitamin C, Vitamin A, calcium and oxalic acid. It also contains Crystalline glycosides, carbazole alkaloids, koenigin, Girinimbin, iso-mahanimbin, koenine, koenidine and Koenimbine. Triterpenoid alkaloidscyclomahanimbine, Tetrahydromahanimbine are also present in the leaves. Murrayastine, murrayaline, pyrayafolinecarbazole Alkaloids and many other chemicals have been isolated from Murryakoenigii leaves. E. faecalis is an enteric facultative gram-positive bacterium which can grow independently in the root canal.It is the most commonly isolated species from the root canals of the teeth, especially those with failed endodontic treatment. Disinfection and shaping of the canal with a combination of chemical agents and endodontic instruments play important roles in the success of endodontic therapy. Complete disinfection by biomechanical preparation alone is not possible. Hence, addition of intracanal medicaments acts as an additional aid for the complete disinfection of root canal system. The additional antibacterial effectiveness of intracanal medicament is attributed to its disinfection by penetration in the dentinal tubules. There has been an increased use of natural products as medicament in endodontic treatment due to the increased adverse effect observed in chemical products used. The natural products used aims to disinfect the root canal and provide a sterile environment as efficiently as the comparable chemical products.

Keywords: Curry leaves, Green tea, 2% Chlorhexidine, Enterococcus Faecalis**.**

SP-19

Assessment of Hepatoprotective and Nephroprotective Potential of Nerolidol on Wistar Rats.

Simona D'Souza[1]Dr. Pavan B. Udavant[2], Shubham J. Khairnar[3],

[1]Associate Professor, Department of Pharmacology, METs Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik.

[2]Assistant Professor, Department of Pharmacology, METs Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik.

[3]M pharm student, Department of Pharmacology, METs Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik.

Email address: pavanudavant@gmail.com.

Abstract

Natural products are gaining popularity in the human diet, owing to thepotential detrimental effects of synthetic food additives on human health, as well asincreased consumer awareness of the issue in recent years. Plant biomolecules havereceived a lot of research, with the focus mostly on their involvement in diseaseprevention.

Keywords- Hepatotoxicity, LDH enzymes.

Material and Method

The present experiment was designed as Group I (control),Group II (Alloxan monohydrate, 120 mg/kg i.p), Group III (Ascorbic acid 250 mg/kgp.o), Group IV (Nerolidol 100 mg/kg p.o), Group V (Nerolidol 200 mg/kg p.o),Group VI (Nerolidol 300 mg/kg p.o). Alloxan was given to all groups excludingcontrol group in order to induce hepatorenal toxicity. The groups III, IV, V and VIreceived the Standard Ascorbic acid and Nerolidol after 72 hrs. ofalloxanadministration for consecutive 14 days. The protective roles and antioxidant activityofNerolidol against Alloxan induced oxidative stress and hepatorenal toxicity wereevaluated by histopathological changes, measuring hepatic and renal damagebiomarkers, antioxidant enzyme levels and malondialdehyde (MDA) parameters inthe liver and kidney tissues of rats.

STUDENTS POSTER PRESENTATION CODE SPO-01 TO SPO-19

SPO-01

"Formulation and Evaluation of Antipigmentation glossy Herbal *Face Pack*"

Ms.Akanksha .S.Lokhande & Ms. Bhavana Tambe.

Student "SMBT Institute of Diploma Pharmacy"Dhamangaon, Nashik

Assist.Prof. SMBT Institute of Diploma Pharmacy"Dhamangaon, Nashik

Email Id: lokhandesaau214@gmail.com

Abstract:

Natural remedies are more acceptable in the belief that they are safer with fewer side effects than the synthetic ones. Herbal formulations have growing demand in the world market. The objective of this work is to formulate and evaluate a cosmetic preparation polyherbal face pack made from herbal ingredients. Dull skin is the most common problem amoungs people. Everyone wants to get a fair and charming skin.All the natural herbal ingredients such as Neem powder, Alovera powder, Turmeric powder,Orange peel powder, Gram flour,Rice flour powder, Nutmeg powder, Sandalwood powder,Bael leaf powder, Red lentils (Masoor dal).dried, powdered and then passed through sieve no 80.All the natural ingredients were weighed accurately. And mixed geometrically for uniform formulation. Then evaluated for all parameters including morphological, Physicochemical, Phytochemical, And along with irritancy and stability examination.The benefits of herbal based cosmetics are their nontoxic nature. It nourishes the facial skin. This face pack supplies vital nourishment to the skin. Herbal face packs or masks are used to stimulate blood circulation, rejuvenates and help to maintain the elasticity of the skin and remove dirt from skin pores

Keywords: Cosmetic, Herbal Ingredients, Herbal Extract, Herbal face pack, Evaluation.

SPO-02

Formulation and Evaluation of herbal Tooth Powder for Oral care"

Ms. Damini Gaykar[1], Ms.Bhavana Tambe[2]

Student [1]SMBT Institute Of Diploma Pharmacy, Dhamangaon, Nashik

Assit .Prof.[1]SMBT Institute Of Diploma Pharmacy, Dhamangaon, Nashik

Email: daminigaykar@gmail.com

Abstract:

Denitrifies are the product which is used to maintain the oral hygiene such as freshness of mouth and to avoid tooth decay The oral hygiene can be maintained throughout the day by using various Dentrifices prepared by herbal and synthetic ingredients . This work was carried out to prepare a tooth powder which can be used as a tool for proper oral hygiene and to overcome the side effects of the conventional tooth powder which can be used as a tool for proper oral hygiene and to overcome the side effects of the conventional tooth powder prepared by synthetic ingredients. Tooth powder is used in combination with tooth to maintain the oral hygiene such as freshness of mouth and to avoid decay. The tooth powder was prepared by using a various herbal ingredient which posses the Anti-bacteria, Antiseptic and cooling properties. Tulsi, Neem, clove, cinnamon, Ginger, Amla, Trifala, Mint, Blacksalt, Sodium laurel sulfate, calcium carbonate. The anti-inflammatory and anti-infectious properties of neem make it a powerful treatment for gum disease. Are the herbal ingredient were use in this work to formulate ideal tooth powder which can satisfy all the required properties to keep the mouth fresh and to prevent tooth decay.Oral hygiene is a very important for health. Tooth powder is work such as breath is freshening and teeth whitening. It can aid in the elimination and masking. Oral hygiene is an important key to maintain the good appearance, impression of an individual and gives confidence.

Keyword – Herbal Drug, Tooth powder, Evaluation Oral hygiene.

SPO-03

Formulation and Evaluation of Blumea Lacera Cream.

Mr. Kunal Rajput, K.J.Tiwari

[1]Student of SMBT Institute of Diploma Pharmacy Dhamangaon Nashik India.

[2]Assist.Prof. of Smbt Institute of Diploma Pharmacy, Dhamangaon, Nashik, India.

Abstract:

The present study mainly focuses on the antimicrobial activity of *Blumea lacera* leaf. The leaf extracts showed the presence of various secondary metabolites like alkaloids, phenolic compounds, tannins, flavonoids, and saponins. The study reveled that leaf of *Blumea lacera* showed antimicrobial activity against various organisms. The leaf contains exceptional antimicrobial components which can be useful for formation of pharmaceutical antimicrobial preparations. This research contains preparation of antimicrobial cream from *Blumea lacera* leaf and its activity on wound healing.

Keywords: Antimicrobial, *Blumea lacera,* Leaf, Wound healing, Alkaloids.

SPO-04

"Formulation and Evaluation of Multipurpose Herbal Cream

Mr.NitinVanarase[1]& Ms. Bhavana Tambe[2].

Student [1]SMBT Institute Of Diploma Pharmacy, Dhamangaon, Nashik

Assit .Prof.[1]SMBT Institute Of Diploma Pharmacy, Dhamangaon, Nashik

Email Id: nitinvanarase1@gmail.com

Abstract:

The main objective of this study is to formulate and evaluate an herbalmultipurpose cream which is herbal and does not show any side effects. The "multipurpose herbal cream" which is containpolyhedral, shows no side effects andanti aging ,would healing, relieve skin dryness, itching and redness; This formulation contains all herbal ingredients like Neem,tulsi,aloe Vera, Along with bees wax, liquid paraffin,White soft paraffin, rose oil ,methyl paraben acts as a preservatives.. This formulation passes all the evaluation tests Physical appearance, Determination of pH, viscosity, washability.spreadability greasiness,

Keywords: Herbal drugs, Herbal drug extract, Herbal multipurpose cream, Evaluation.

SPO-05

Design and Development of Herbal Delivery System for the Treatment of Lips Hyper-Pigmentation.

Ashvini Bharti, Dr. V.V. Potnis, Shital Bhosale, Vishal Shelke

Abstract

Hyperpigmentation of lips that is characterized by darkening of red portion of lips accompanied with dryness and bleeding is common disorder occurring in both men and women. It mostly affects age group of 25-40 years and has unpredictable course. The major causative factors include; smoking, sun exposure, post-surgical treatments, medications, excessive caffeine intake. Hyper pigmented dry lips crack and bleed if left untreated. More complex symptoms include pain, swelling and disfigures external appearance and personality. Topical polyherbal medicated oil "Kumkum Adi oil" ChapStick is formulated for treatment of lips hyperpigmentation. Materials used for formulation of ChapStick are Kumkum Adi oil, white Bees wax, Shea butter, Mango butter, Sal fat, sodium lauryl sulphate, polysorbate 80(tween 80) and methyl paraben. Chap-stick is prepared by HEATING AND CONGEALING METHOD (by melting waxes according to their M.P. considered as phase A. secondly heating of Kumkum Adi oil in porcelain dish 85*c. Addition of preservative in the oil with continuous stirring considered as phase B. Cool phase A to 75*c and mix with phase B with continuous stirring. Pouring of mixture to ChapStick mould at temperature 70*c. Allow to cool the mould and remove the chap-stick.) Formulated ChapStick is evaluated for evaluation tests like organoleptic evaluation physicochemical evaluation, spread ability, washability, stability. At last, it was concluded that Kumkum Adi oil ChapStick shows potential depigmentation activity.

Keywords– lips hyperpigmentation, Kumkum Adi oil, ChapStick, lips depigmentation.

SPO-06

Phytochemical composition, Biological activities and Nutritional aspects of Hylocereusundatus: A review

Ms. Dhanashree D Mande, M Pharmacy, Department of Chemistry
SMBT College of Pharmacy Dhamangaon, Nashik

Abstract:

One of the tropical fruits belong to the cactus family, Cactaceae is the dragon fruit or pitaya. A phytochemical substance known as an antioxidant is also known as a bioactive compound. Flavonoids, polyphenols, terpenoids, steroids, saponins, alkaloids, tannins, and carotenoids are examples of bioactive substances.One dose of the skin from dragon fruit prevented the proliferation of human hepatocellular cancer cells.The fruit includes all the nutrients needed for a balanced diet, including vitamins, fat, crude fibre, and minerals, according to nutritional analyses

Keywords:-anticancer activity, morphological character, phytochemical constituernts.

SPO-07

An Antimicrobial Activity of *Trachyspermum Ammi* Leaves

Ms. Manasi S. Bhoir[1], and Ms. Sujata V. Lambe[2]

[1]Final year student, SMBT College of Pharmacy, Nashik, India.

[2]Asst. Prof., SMBT College of Pharmacy, Nashik, India.

E-mail address: bhoirmanasi721@gmail.com

Abstract

The present study was carried out to evaluate antimicrobial activity of leaves of *Trachyspermum ammi*by using methanolic extract.According to religious and cultural traditions, medicinal herbs have long been thought of as a source of therapeutic cures.Due to the numerous adverse effects of synthetic medications, plant substances are now used as drug sources.*Trachyspermumammi* leaves contains phytochemicals such as carbohydrates, tannins, glycosides, moisture,protein, saponins, flavones, antioxidant carotenoids, lutein, zeaxanthin,and various other components involving metals. The phytoconstituents present in the leaves of *T. ammi* like flavonoids and TPC which is responsible for antimicrobial activity.

Keywords- Antimicrobial activity, medicinal plant, flavonoid.

SPO-08

A Review on Herbal Medicines Used In Treatment of Jaundice

Mr. Mayur R. Wagh1, and Dr. Avinash S. Dhake2 1
SMBT College of Pharmacy, Nashik, India. 2,
Professor, SMBT College of Pharmacy, Nashik, India.
E-mail address: Mwagh1142@gmail.com

Abstract

Jaundice is a condition that is indicative of various diseases that are concerned with liver disorder. It is characterised by yellow skin, mucosa and sclera due to increase in amount of bilirubin in blood and urine. Medicinal plants are used from ancient times in the treatment of hepatic ailments. This review includes 5 medicinal plants that are used in treatment of jaundice. Picrorhiza kurroa rhizomes have useful hepatoprotective action, attributed to the presence of picroside II and kutkins. Swertia chirayita, a Himalayan herb, has been used to such an extent, that is now an endangered species. Besides use in jaundice, the whole plant has numerous other applications including antiinfective and anti-inflammatory. Centratherum anthelminticum seeds have medicinal value due to phenolic acids, flavonoids and terpenes. Apium graveolens seeds contain furocoumarins, phenols, essential oils and fatty acids which lead to multiple biological actions. Tinospora cordifolia stems are traditionally used in jaundice while other parts also have varied activities. The chemistry of the active principles in these plants has also been elaborated along with their applications.

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SPO-09

Anticancer Activity on Ethanolic Extracts of Anisomeles Heyneana

Dipak Suresh Thorat[1], Dr. Yogesh. V. Ushir[2]

[1]Student of SMBT Institute of Diploma Pharmacy Dhamangaon Nashik India.

[2] Principal of Smbt Institute of Diploma Pharmacy, Dhamangaon, Nashik, India.

E-Mail Address:dipaksureshthorat8806@gmail.com

Abstract:

Aim: - To study the cytotoxicity and anticancer activities of the ethanolic extract of ***Anisomelesheyneana.*** This species is commonly called as western hill catmint, Chandhara in Hindi, Gopali in Marathi and in Sanskrit it is named as Oshthaphala Anisomelesheyneana. It is a taller, t 1-1.5 m Hight. Slender stems and branches are. Oppositely arranged ovate lance-like leaves are 5- 12 cm long. Flowers occur in which are 10- 30 cm long. Small 2 cm flowers are white, tinged with pink, and 2-lipped. Upper lip is 5 mm. The lower lip is 3-lobed. The flowers resemble cow's earlobes, which gives it its Marathi name. Flowering: October-November. And all member of this genus used as an anticancer, , and antipyretic etc. To study the cytotoxicity, we use to conducted the test for in vivo Brine Shrimp Lethality Assay (BSLA) of the ethanolic extracts of Anisomelesheyneana that gives the cytotoxic activity and phytochemical study of the plant. Cytotoxicity was evaluated in the form of LC50 (lethality concentration). Ten nauplii were added into three type of each concentration of the plant extract. After 24 h the surviving brine shrimp larvae were counted and LC50 was assessed.

Hemocompatabilty :-To determine how blood cell react with extract And in case if more deflocculated cell is there so it isnonhemocompatableOr if no any deformation is there so it is hemocompatable.

Keywords: -Hemocompatabilty,Cytotoxicity, Brine Shrimp Lethality Assay, LC50,

SPO-10

Design and Development of Value Added Herbal Delivery System for Topical Treatment of periodontal diseases-Toothpaste and chewable film.

Puja Kadam. Vaishali potnis, Kunal hake,

Abstract

Arimedadi oil recommended for oil pulling therapy /procedure in sushruta bhaisajyaratnavali and charaka Samhita. Indicated as prophylactic oral care product as well as local treatment of almost all dantarogas including stomatitis, glossitis, apthous ulcers, dental care, pyorrhea, gingivitis stain removal and hyperemia of gums. The purpose of this study was to design and development of value added herbal delivery system for topical treatment of periodontal diseases. In present study an attempt was made to formulate toothpaste by liquid phase process. And formulation of chewable film of arimedadi oil.Chewable film base oral care product. It is used for mouth fresher and teeth cleanser. a number of synthetic gum are available in market for pain management ,smoking cessation , travel sickness, beside being used for dental caries, xerothermia.Toothpaste of arimedadi oil to achieve the high foaming power, penetrability, antimicrobial and anti-inflammatory efficacy at much lower concentration than the neat oil. The batches of toothpaste of arimedadi oil were prepare based on high PG, high GLY, low PG, and low GLY.

The batches of toothpaste of arimedadi oil containing high concentration of glycerine was superior spreadability, foaming power, pH, washability, and content oil. Its antimicrobial efficacy against S. mutans better than the reference of herbal toothpaste. The formulation also remained stable and revealed no significant changes in any of its physical physicochemical and functional characteristics after storage for 30 day.

SPO-11

Formulation and Evaluation of Herbal Paste Use for Oligomenorrhea

Shweta G. Gunjal

SMBT College of Pharmacy, Nashik, India

Abstract

Oligomenorrhea is a type of abnormal menstruation that involves infrequent periods. You may regularly go for longer than 35 days between periods. Hormone imbalances are often to blame for oligomenorrhea. It can be cured by use of various medicinal herb.

Keywords: Herbal Paste, medicinal herbs, oligomenorrhea, extraction.

SPO-12

Preparation and Evaluation of Bath Bomb from ethanolic extract of *Delonix regia* leaves

Vaishnavi Shirsath* and Sneha Sonawane

SMBT College of Pharmacy, Dhamangaon, Nashik, Maharashtra, India

Email Address: vaishnavishirsath10@gmail.com

Abstract:

Bath bomb is preparation generally used for refreshing, relaxing and fragrant bath. The name looks scary but the formulation is quite interesting. Introduction of therapeutic action like antiseptic, antifungal and antibacterial action in bath bomb is novel idea.

Keywords: Bath bombs, antibacterial, antifungal, antimicrobial.

SPO-13

Formulation and Evaluation of Fast Dissolving Buccal Film for Antihypertensive Drug

Mr. Vyankatesh Shashikant Katule[1] and Mr. Pratik Balasaheb Jagtap[2]

[1]Student, JSPM'S Jaywantrao Sawant College of Pharmacy, Pune, India

[2]Student, JSPM'S Jaywantrao Sawant College of Pharmacy, Pune, India

Abstract

High blood pressure is condition in which force of blood against artery is high. Buccal fast dissolving film is one such novel approach to increase consumer acceptance by virtue of rapid dissolution, self administration without water or chewing. The film is an ideal intraoral fast-dissolving drug delivery system. In this study, Benidipine hydrochloride was used in treatment of hypertension. Pre-formulation studies were carried out in order to identify drug sample and to check the compatatibility between the drug and polymer. Buccal film of benidipine hydrochloride prepared using solvent casting method. Benidipine is potent long lasting drug indicated for treatment of cardiovascular diseases such as hypertension. It is officially in IP hence, standard for identity, purity and quality are established. This medication blocks calcium inflow into cells and consequently dilates constricted vessels to decrease blood pressure. Benidipine is stable in oral environment.

Keywords: Benidipine hydrochloride, Polyethylelene glycol.

SPO-14

Isolation and purification of hyaluronic acid from *Ipomoea batatas.*

Ms. Sakshi B. Bhalerao[1], and Dr.Vijay R. Mahajan[2]

[1]M Pharm Pharmaceutics, SMBT College of Pharmacy, Nashik, India.

[2] Assistant Prof., SMBT College of Pharmacy, Nashik, India.

E-mail address: sakshi99bhalerao@gmail.com

Abstract:

Hyaluronic acid is utilized in certain eye surgeries like, corneal transplantation, and repair of a disengaged retina and other eye wounds. Hyaluronic acid is additionally utilized as a lip filler in plastic surgery. A few people apply hyaluronic acid to the skin for mending wounds, cosmetics, skin ulcers, and as a lotion. Hyaluronic acid has been advanced as a "wellspring of youth." In the present investigation, Ipomoea batatas (sweet potato) was chosen for the study. The samples were extracted with methanol and chloroform.Estimation was carried out to check the presence of total carbohydrates, proteins and reducing sugars. Qualitative and quantitative studies were carried out which indicated the presence of hyaluronic acid like components in sweet potato. The viscosity was used for the base of identification of Hyaluronic acid. The viscosity of extracted hyaluronic acid was found to be 2.55 poise by using water as a standard.UV spectral analysis of extracted hyaluronic acid was performed sample showed maximum absorption at 191.4 nm.The results of the present work suggested that hyaluronic acid like components are present in Sweet potato.

SPO-15

Current Development in Bioanalytical Sample Preparation Techniques

Sakshi R. Sangale[1]* and Pravin R. Dighe[1]

[1]SMBT College of Pharmacy, Nashik, India.

Abstract

Sample preparation is the most challenging process in bioanalysis, since biological sample matrices are typically complex as they contain proteins, salts and a wide range of organic compounds with chemical characteristics similar to the target analytes. Therefore, sample preparation is crucial process as it increases matrix suitability for analysis in several ways: isolating the analytes and removing obstructive components from the matrix. Over the past ten years, novel sample preparation methods have gained popularity due to their advantages over traditional methods in terms of accuracy, automation, simplicity of sample preparation, storage and shipment. The motive of this review is to make aware about current development in bioanalytical sample preparation techniques.

Keywords: Bioanalysis, Sample preparation, Microextraction, Biological sample matrices.

SPO-16

Herbal Guggul Ointment Formulation Act as Penetration Enhancer

Ms. Mansi Khabiya

Abstract:

Guggul is a gumresin obtained by incision of the bark of commiphora mukul (H.and S) Engl ; belonging to family Burseraceae.Aim to improve penetration enhancing of aqueous soluble drug ointment formulation.The main aim to get a good therapeutic effect by dilating the cell ,increase penetration of aqueous Soluble drug in to it.

Keywords: Penetration enhancer, guggul, anti-inflammatory,psoriasis,antioxidant,detoxifying agent

SPO-17

Pharmacological Investigation of the Wound Healing Activity of Tecuma Unduleta Ointment In Swiss Albino Mice.

Apurva Torane *Prof R.R Sable

Department of pharmacology, MET's institute of pharmacy,

Bhujbal knowledge city Adgoan, Nashik -422003

ABSTRACT

Pharmacological investigation of wound healing activity of Tecuma unduleta in swiss albino mice.The preliminary phytochemical investigation of hydroalcoholic extract of tecuma unduleta was carried out .mice were used for wound healing study,used for skin irritation test .Oral administration of the crude extract was carried out for burn and excision model . Herbal ointment where used for study parameters including rate of wound contraction, period of complete epithelialization was evaluated .Herbal ointment efficiently increases the rate of epithelialization and collagen viability around the wound area .thus it was concluded that the wound healing potential of herbal ointment in burn wound model found to be more significant than that of in excision wound model.

Keywords -Tecumaunduleta, wound healing in Vivo, Herbal ointment, In Vitro study, Burn wound model.

SPO-18

Formulation and Evaluation of Herbal Anti-Dandruff Hair Gel

Ms.Shipali Gowardipe (M . Pharm), Ms. Shraddha Shankarpelli,Mr. Siddheshwar Rajguru

Dr. V.V. Potnis, Principal, JSPM, sJaywantrao Sawant College of pharmacy and research, Pune, India

Dr. Suchita Dhamne, Professor, JSPM, s Jaywant roa Sawant college of pharmacy and research, Pune, India

Jaywant roa Sawant college of pharmacy and research Hadapsar pune**.**

Abstract-

Introduction

Seborrheic dermatitis is a skin condition that causes flaking of the skin. Seborrheic dermatitis is a common scalp disorder affecting almost half of the population at the post-pubertal age of and any gender and ethnicity which affect the 5% of the global population. In India 20.7% of men and 12.8% of women was affected to dandruff. The most common fungi involve in the dandruff is Malassezia.

Keywords: seborrheic dermatitis, dandruff, Malassezia).

Material and Method

Murraya koenigii oil containing gel is prepared for treatment of seborrheic dermatitis. The gel has greater stability and better efficiency for delivery of hydrophobic or water insoluble drugs. they have high patient acceptability due to ease of application and removal. The gels were prepared by simple gelling agent Carbopol 940 and HPMC K4M. the drug (*Murraya koenigii* oil) is essential, directly adding drug in gel is not possible so it entrapped in microsphere. The microsphere of sodium alginate is having good encapsulating property and this microsphere added in the gel.

Result and Discussion

Optimized gel possessed good physic-chemical characteristics viz. consistency homogeneity and performance characteristics viz. pH, viscosity, spread ability, drug content drug release and stability. Gel containing microsphere loaded (*Murraya koenigii)* Oil significant antifungal activity against Malassezia furfur (MTCC14), the main causative fungus for seborrheic dermatitis.

SPO-19

Fabrication of nanoparticulate system for oral delivery of Naringenin against Paraquat-induced Parkinson's disorder in Wistar Rats

Mr. Jayesh D. Kadam[2] ,Dr. Neelam L. Dashputre[1], Dr. Umesh D. Laddha[1], and Ms. Surabhi B. Patil[21]Assistant Professor, MET's Institute of Pharmacy, Nashik, India.

[2]Student, M. Pharmacy, MET's Institute of Pharmacy, Nashik, India.

E-mail address: jayeshkadam21s@gmail.com

Abstract

Introduction

Parkinson's disease is a progressive nervous system disorder that affects movement. Parkinson's disease typically develops between the ages of 55 and 65 years and occurs in 1%–2% of people over the age of 60 years, rising to 3.5% at age 85–89 years. About 0.3% of the general population is affected, and the prevalence is higher among men than women, with a ratio of 1.5 to 1.0. In the early stages of Parkinson's disease, your face may show little or no expression. Your arms may not swing when you walk. Symptoms include Tremors, Bradykinesia, Impaired posture and balance, and Speech changes. Parkinson's disease symptoms worsen as your condition progresses over time. Although Parkinson's disease can't be cured, medications might significantly improve your symptoms. The cause of Parkinson's disease is unknown, but several factors appear to play a role, including Genes, Environmental triggers, Presence of Lewy Bodies, and Alpha-synuclein in Lewy bodies. Current treatment for Parkinson's disorder includes Cell implantation, Gene therapy, Surgical approaches, and Rehabilitation. But there are several adverse effects associated with these treatment methods. Nanoparticles are particles between 1 and 100 nanometres in size. They have significant advantages over NDDS such as:

1. Due to their small size than microspheres and liposomes they can easily pass through the sinusoidal spaces in the bone marrow and spleen and also possess the capacity to penetrate the Blood Brain Barrier as compared to other systems with long circulation time
2. Nanoparticles increases the stability of drug/proteins against enzymatic degradation
3. They offer a significant improvement over traditional oral and intravenous (IV) methods of administration in terms of efficiency and effectiveness

4. It reduces the toxicity of the liver

Hence the current study aims to Develop, Characterize, and Evaluate Naringenin-loaded nanoparticles for managing Parkinson's Disorder.

Materials and Methods

The current research includes the neuroprotective effect of naringenin nano-suspensions, and development and the characterization of these nano-suspensions. A qualitative study of Naringenin such as Melting point, Calibration using UV-visible spectroscopy, Solubility in different solvents, and IR-Interpretation for structural elucidation was performed. All formulations were prepared with the help of a High-pressure homogenizer. Particle size, zeta potential, and entrapment efficiency of each batch were performed, and the optimized batch was subjected to spray drying to get the nanoparticles further evaluated through UV-visible Spectroscopy, IR-Interpretation, DSC, XRD, and SEM were performed. AOT study as per OECD guideline 420 was performed. For the in-vivo study, these animals were treated with paraquat (i.p.) for 6 weeks, during which the treatment with oral nanosuspension and standard drug each day, 60 mins prior to paraquat which was administered twice a week was done. After 42 days parameters like Gross examination of the brain, Relative brain weight determination, behavioral parameters by Open Field Maze Test and Rotarod Test, biochemical evaluation (MDA, SOD, CAT, GSH, α-synuclein protein levels), and immunohistochemistry (BDNF level) investigation were performed. A histopathological study of the brain was also performed.

Results and Discussion

Nano-suspension was formed with the required particle size, zeta potential, and thermal properties. Treatment with Naringenin nano-suspension showed neuroprotective activity as per the results of the Behavioural studies, histopathological studies, biochemical estimation, and immunohistochemistry evaluations.

Acknowledgment

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